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# THE CONDOR A MAGAZINE OF WESTERN ORNITHOLOGY.



Edited by  
Walter K. Fisher

Joseph Grinnell  
Frank S. Daggett  
Associates

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PALO ALTO, CALIFORNIA.





CHESTER BARLOW.

*Died November 9, 1902.*

# THE CONDOR A MAGAZINE OF WESTERN ORNITHOLOGY.



Volume V

January-February, 1903

Number 1

## IN MEMORIAM:

Chester Barlow.

BY HENRY REED TAYLOR.

WORDS cannot tell, and the pen falters as a thing which is feeble and futile in an effort to express all that is comprehended in the simple words, "Barlow is gone."

If to live nobly life's allotted span, doing each day one's best in all things; turning aside from no task in the line of duty until it be accomplished; joyously and unselfishly striving until the end, in order that others might be benefited and share the full measure of happiness found in a true interpretation of Nature's manifold charms—if these and other lovable attributes point close to a perfect life, then may it be said that not in vain did Chester Barlow live.

His works, and the many seeds of kindness he delighted to scatter along the way, have not been lost to us who knew and loved him; and while he has passed on, and left in many a heart an aching void which cannot soon be comforted, there are lessons we have learned from him, treasured memories of an enthusiastic naturalist, a true-hearted gentleman and loyal, helpful friend, which time can never efface.

The sense of personal loss which we as club members feel cannot be lightly expressed. What the world of science and letters has missed in the passing of a student, observer and writer of such uncommon talents cannot be measured now, but we know that as his influence was broadening and uplifting upon all with whom he came in contact, so the unfolding of his mature mind, the revivifying of all that he touched, gave promise of great things in the future.

Certainly it may be said, a beacon light of ornithology on the West Coast glimmered fitfully and expired when the brave spirit of Chester Barlow left the world.

In his active life, so filled and rounded with meritorious deeds, Mr. Barlow was loath to lay aside his work, even when the manifestations of the dread disease with which he was stricken should have counseled him to slacken his pace. When with him last summer in the Sierra, I urged him to lay aside all extra work and care for his health. He would be all right again soon, he said—all he needed was a little time.

After a brief but happy outing he returned to his duties as assistant cashier in the Santa Clara Valley Bank, where he labored on for nearly two months, still deceived as to the seriousness of his condition. When his employers finally obliged him to knock off work he went with his wife to Pacific Grove, hoping that the change would lead to an improvement. The end was not far distant, but he never seemed to realize it, and as he suffered no pain his own cheerfulness lulled the fears of those dear to him. To the last he was hopeful.

A week before his death he declared to Mr. Emerson that by the next week, surely, he would be able to take up the accumulated correspondence of the club, to which he had always attended so faithfully. He would not admit that he was ill enough to require another to take hold of the work or even assist him with it. When the end came, rather suddenly, his passing was peaceful, and fifteen minutes before, he had been helped up and had been sitting in a chair. In a beautiful rural spot, where perchance the white-tailed kite, of which he loved to tell us, may alight in the huge spreading live oaks about his grave, he lies at rest.

It will take some time to realize that he has taken his final journey: that he who disseminated, so lavishly, kindness, good cheer and fellowship; he whose cordial welcome and smile and jest added warmth and happiness to the meetings of our bird students, has really gone out of our life—a little farther on than we have traveled, and beyond the barrier o'er which we may not see, nor, hearkening hear a far "Halloo!" the jovial call of him who was our faithful comrade, our genial companion on many a woodland trail, through brake and fen, on the islands of the sea, or in mountain fastnesses where he loved to roam and ponder; where the birds are singing and calling, and in the silence wondering, mayhap, why he comes no more to those fair scenes he loved so well.

Now that we muse upon the personality of our good friend, from whom in the high administration of an omniscient Providence we have so soon and so sadly been parted, none can think of him, it is safe to say, save as one in a happy, cheerful mood. The mere mention of his name, the superscription of an old letter, recalls inevitably a smiling face, an occasion of good-humored banter; or, perhaps, one with quiet, intent manner, cheerful, unfailingly courteous, and eager of accomplishing an end. It is as a prince of good fellows that we love to remember Barlow, yet we admired his earnest bearing, his equable poise of character, and wondered at the seemingly boundless energy which influenced all his undertakings.

Scarcely more than a dozen years were devoted to studies in Ornithology before his bright career was brought to a close at the age of twenty-eight. From early excursions into the lore of birds, which aside from his home life and his friends was ever the subject dearest to him, he soon passed the experimental or juvenile stage and devoted himself assiduously in his leisure to the advancement of Ornithology on this Coast.

Of the work he has done, the value of his researches, it is not within the province of the present writer here to speak. Rather is it his high privilege to touch upon the life and personality of one whom, in the intimate intercourse of our club meetings, during a decade which has sped all too quickly, we feel it an

inspiration to have known so well; of one whose memory we cherish, in a sadness which comes again and again and will not be dissipated, holding it with all that is good and best upon the earth.

Mr. Barlow was born in San Jose, which was for so many years his home. He was graduated from the High School with exceptional honors, and subsequently entered the Santa Clara Valley Bank in Santa Clara, where he became practically indispensable to the management, being familiar with every branch of the work. His parents being dead he was early self-reliant. His studious disposition led to the collection of a considerable library, particularly of ornithological books. In addition to the painstaking editorial work he undertook, he joined a local lodge of Odd Fellows, in which he filled the chair of Noble Grand. He also found time for some months to attend to commercial correspondence for a firm of seed growers. He made many friends, and it was said of him that he had not an enemy in the world.

He delighted in trips afield and made many excursions into San Benito county and various sections of Santa Clara county in pursuit of his oological hobby, but during his later years he devoted much less time to collecting. He revelled in an opportunity to get away to the hills after golden eagle's eggs. Many a joyous tramp over hill and canyon has been enjoyed by the writer with Mr. Barlow. He was an expert climber and we shared in the secret of the location of a number of nests which were particularly hard to reach.

In the field he was a delightful companion, and always a keen observer. He made careful notes and took many photographs, which went to embellish the pages of magazines. His style was particularly pleasing, and thousands of bird students who have read his articles will feel a sense of personal loss at his passing from among us.

It seems scarcely necessary to say that Mr. Barlow was a charter member of the Cooper Ornithological Club. So much of its history, its steady growth in popularity and usefulness, is directly attributable to his untiring efforts and wise counsels that it is impossible to dissociate the man from the club which he, more than any other, did so much to perpetuate. It was always near to his heart, and with cheerful zeal, which commanded the admiration of all, he gave his time and talents to booming the meetings, booming the club and spreading the fame of its magazine, of which he was the highly talented editor until Death touched him gently and called him hence from earthly tasks well and nobly accomplished.

He never served as President of the club, but he was more than that. Often I have said to him, "Barlow, you *are* the club." He came very near that many times, and we who know the club's history and of all his labors for its advancement may place the honor where it is due. Others have done much, but our good friend was head and shoulders above any in the making of its fortunes.

No sooner was a meeting over than Mr. Barlow was planning for the next. As Secretary, from the organization's inception, he filled many offices in one. Modesty was one of his charming traits, and without hope of reward he accomplished great things. Unassuming, he never sought preferment, but knowing that some one must do the work he did it steadfastly, patiently, joyously. No discouragement balked him, for he entered heart and soul into his labors. He could never be spared from the office of Secretary, so important in a bird club with widely scattered membership, to accept the more or less honorary position of President. Through nearly ten years of arduous endeavor he never shirked a responsibility nor sought to shift the burden upon another's shoulders. It was



his delight to render hard, personal service in the club's behalf, and he left to others the nominal honors. As President he would have served well, and it would have given him pleasure, but if the thought occurred to him he put it aside with the unselfish feeling that his place was where the club most needed him. At the last meeting of the Cooper Club, held not long before his death, he was nominated for the Presidency of the club for 1903, an office he now can never hold.

The writer well recalls, amid a host of pleasant reminiscences, how he first had the pleasure of meeting Mr. Barlow in San Jose in the summer of 1893, but a few months after the Cooper Ornithological Club had been started by a few enthusiastic and youthful bird students of that vicinity. I was about to launch the *Nidologist* at Alameda, and hearing in some way of the club in Santa Clara county made the trip with a view to forming a sort of coalition.

I found that the club had six or seven members all told, but they were very much alive, among them being Chester Barlow, Wilfred H. Osgood, Harry R. Painton and Mr. Schneider. I attended a meeting at Painton's house at College Park after spending the day with Barlow and Osgood, and joined the club. The "Traveler and Naturalist," an unpretentious journal printed on a small hand press some where, was to have been made the official organ of the bird club, but the seven members voted unanimously in favor of adopting the "Nid." Thereafter the "Traveler and Naturalist," having lost the block of seven subscribers constituting the Cooper Club's membership ceased its travels, pined and died.

At that early meeting the discussion of exchange deals in eggs, made with certain eastern collectors by Osgood, Barlow and Schneider, and jovial collecting reminiscences, not to forget a generous collation, succeeded the "reading of scientific papers," among which, if I mistake not, there was one by Mr. Osgood on the "Nesting of the Yellow-bellied Flycatcher." That meeting was a red-letter occasion for the present writer, and led to a frequent correspondence with Mr. Barlow, then editor of the club's department in the *Nidologist*, which continued uninterrupted with mutual profit and enjoyment through the years, cementing a friendship in ties which became indissoluble, and which promised so much of happiness through life.

The relations of the club and the ornithological journal I then published, carried on through the medium of the genial Secretary, were always most pleasant, and proved helpful to the club and to the journal. The members early showed a cheerful disposition to aid the editor with photographs for illustration and with entertaining articles. Barlow wrote an article on the nidification of the cinnamon teal and the mallard duck. Schneider had a fine picture of a mallard's nest and eggs, but it seems he had promised it to the *Oologist*. It was *in situ*, and just what I wanted. Barlow and Osgood "labored" with Schneider and finally induced him to "loosen up" and supply the club's official organ with the coveted photograph, which after publication I ascertained was of a "home made" nest, which had been cunningly formed by Mr. Schneider himself in the grass near his house for photographic purposes.

How many good times we had at Barlow's home in San Jose! In those days when he was unmarried, and afterward in his pretty cottage at Santa Clara where his charming wife joined in extending hospitality to "bird cranks," his latch-string was always out for the "boys," and visiting ornithologists in the State were glad of an opportunity to seek out the Mecca of our bird students, where a cordial welcome was ever extended.

Barlow always "expected" his friends. No special invitation was necessary.

I recall vividly the experience of one night, which illustrates, if crudely, the sort of good fellow Mr. Barlow was with his friends. On bicycles with my younger brother-in-law, who had never met the Cooper Club's Secretary, I left Alameda one evening for a spin on the country road. Having reached Haywards we yielded to a sudden impulse to keep on to San Jose. The small change we had with us was soon spent for crackers and cheese by the wayside, and after a toilsome run of fifty miles we arrived in San Jose after 9 p. m., hungry, dusty as tramps, and broken in spirit and purse as well.

Barlow was our refuge. We prayed, very fervently, that Barlow might be at home. With trepidation we rang the bell. The landlady opened the door slightly and said, in response to our inquiry, that he was in Santa Clara. She did not know if Mr. Barlow would return before midnight, if then. Of course we said we were very sorry (we really were), that we had journeyed far to see Mr. Barlow, and felt deeply grieved at his absence.

"Did he expect you?" said the landlady.

"Oh yes, ma'am, yes indeed!" we unblushingly answered.

Then to our unspeakable relief she said we might come in and ascend to his room. We accepted the invitation with alacrity. We furthermore made ourselves very much at home—used his towels, ate of anything we found about, enjoyed his books, and when tired of waiting for him to arrive capped the climax by retiring to rest in his bed. When he came home he was most happy to discover we had taken possession, and wanted to insist on our visiting a restaurant at once for further refreshment. Then we slept, three in a bed, or slept when we ceased talking in jolly vein. I believe the bed came down in the middle of the night, but a little thing like that did not faze us. Next morning we borrowed from our kindly host, who insisted on our staying longer, fares to return by train.

It is the fraternal feeling in the Cooper Club, the jollity and sociability which our friend did so much to foster, that has united so closely its members, encouraging them to travel over 100 or 125 miles on the round trip to attend a meeting. It is our happiness to know that this spirit survives and will long continue.

Mr. Barlow was ever ready to give information to younger fellows anxious to learn, and no one can enumerate how many such he has aided in many ways and induced to become members of our club. Some of these have since become writers and ornithologists of note.

The mystery and grandeur of the Sierra Nevada mountains held him in a spell which grew upon him year by year, and in those wonderful mountain ranges he did his last work. The nests and eggs or the birds he might collect or record in that interesting region were subordinate to the love he felt for the wonder of the great woods, the songs of the birds of the wild, high Sierra he knew so well.

So I have seen him on his last expedition to the Pracerville-Tahoe trail, reposing beneath some forest giant on the mountain side, and lost in happy reveries, while he enjoyed it all supremely; and there was a look upon his face as though across the great, dark canyons, and over beyond, he saw a fairer land, a land where the birds still rapturously sing, and a brooding peace awaits all those who keep their hearts sweetly in tune with the glories of the world, which seen aright, point the way to harmonies celestial and eternal.

### The Ornithological Writings of Chester Barlow.

BY JOSEPH GRINNELL.

**D**URING the even decade of Chester Barlow's activity along literary lines more than fifty articles appeared to his credit, besides recently numerous editorials and short notes. His first article that I have found came to print in August, 1902, in Lattin's *Oologist* where so many of us younger bird-students received our first inspiration to "write up" what we had learned. This first article of Barlow's was on the nesting of the ashly petrel on the Farallone Islands. He had visited these fascinating bird-islands and his discoveries there served also for several subsequent papers of remarkable interest to their younger readers, who longed to get to the oologist's paradise that was so vividly depicted.

In 1893, within a few months after the founding of the Cooper Ornithological Club, its Secretary's Reports began to appear regularly in Taylor's *Nidologist*. These reports were compiled largely from papers presented at the meetings. Here Barlow's good judgment and literary talent came into play in culling out and compiling from the heterogeneous and often poorly-composed manuscripts those accounts we still find so full of interest. These "Secretary's Reports" continued for nearly four years, and are yet of high value for reference in regard to the life-histories of many western birds.

During this period many signed articles also appeared dealing with bird-life in Santa Clara county. Here we find valuable articles on the nesting of the white-tailed kite and golden eagle. Then came the summer-vacation trips to the Sierra Nevada, and the delightful articles relating to its bird-life, not only pleasing, but of permanent value to science—important additions to the known histories of such birds as the hermit warbler, Calaveras warbler, olive-sided flycatcher and Cassin Vireo.

With the inauguration of the Bulletin of the Cooper Ornithological Club in January, 1899, Barlow's really most important service to ornithology began, though his own signed articles became fewer. We probably never can sufficiently realize the great influence Barlow exerted in "bringing out" previously unknown observers—urging them to contribute from their own stock of knowledge, and thus instilling that enthusiasm which when once well started may in time lead into the genius of a Coues. Barlow is not considered by some to have been a scientific ornithologist. He never wrote an article which was not intended for the merest beginner to read and enjoy. But I believe his career to have had a much more far-reaching influence on *scientific ornithology* than if he had entered, and confined his entire energy to, systematic or philosophic fields.

1892. The Ashy Petrel (*Oceanodroma homochroa*) on the Farallones. —*Oologist* IX, August 1892, pp. 193-194.

1892. Professional Egging; or the Collecting of Murre's Eggs in California. —*Oologist* IX, December 1892, pp. 255-257.

1893. A Day with the Creek Birds. —*Am. Mag. of Natural Science* I, May 1893, pp. 77-78.

1893. The White-tailed Kite and Prairie Falcon in California. —*Oologist* X, September 1893, pp. 258-260.

1893. Nesting of the Mallard Duck [near San Jose]. —*Nidologist* I, November 1893, p. 38, 2 hftt.

1893. The Pileolated and Yellow Warblers [nesting in Santa Clara County]. —*Nidologist* I, November 1893, pp. 44-45.

1893. Nesting Habits of the Brandt's, Baird's and Farallone Cormorants. —*Am. Mag. of Nat. Science* II, November 1893, pp. 53-54.

1893. Cooper Ornithological Club. [Secretary's Report, including notes on Lutescent Warbler, etc.] —*Nidologist* I, December 1893, pp. 60-61.

1894. Collecting on the Farallone Islands. —*Naturalist* I, January 1894, pp. 7-8.

1894. Cooper Ornithological Club. [Secretary's Reports, including much bird matter compiled from papers presented at meetings]. —Nidiologist I, Jan. 1894, p. 74; Feb., pp. 95-96; March, p. 111; April, pp. 122-123; May, p. 143; July, pp. 159-160; II, Oct. 1894, pp. 28-29; Nov., p. 43; Dec., pp. 56-57.
1894. The Golden Eagle. —Naturalist I, July 1894, pp. 75-77, hft.
1894. Nesting of the Ashy Petrel. —Nidiologist I, August, 1894, pp. 171-173, 3 hftt.
1894. Some notes on the Western Gull. —Nidiologist II, September 1894, p. 7.
1895. Cooper Ornithological Club. [Secretary's Reports, including much bird matter compiled from papers presented at meetings] —Nidiologist II, Jan. 1895, pp. 69-71; Feb., pp. 85-86; May, pp. 123-125; June, pp. 144-145; July, p. 160; III, Sept., 1895, pp. 6-7; Oct., pp. 20-21; Nov., p. 38.
1895. Early Nesting in California [of Magpie, Poor-will, etc.] —Nidiologist II, May 1895, p. 126.
1895. In the Haunts of the White-tailed Kite. —Oologist XII, June 1895, pp. 97-101.
1895. Stray Notes from the Farallones. —Nidiologist II, August 1895, pp. 166-167, hft.
1895. The Yellow-billed Magpie. *Pica nuttalli*. —Avifauna I, October 1895, pp. 20-21, hft.
1896. Cooper Ornithological Club. [Secretary's Reports, including bird matter compiled from papers presented at meetings] —Nidiologist III, April 1896, pp. 88-89; August, pp. 141-142.
1896. Cassin's Vireo in Santa Clara Co., California. —Wilson Bulletin No. 8, May 1896, pp. 7-8.
1896. Three days in the Sierras. —Osprey I, September 1896, pp. 5-7, hft.
1897. Cooper Ornithological Club. [Secretary's Report, including several bird notes] —Nidiologist IV, January 1897, pp. 41-43.
1897. Some Notes on the Nesting Habits of the White-tailed Kite. —Auk XIV, January 1897, pp. 14-21.
1897. Occurrence of *Zonotrichia albicollis* in California. —Auk XIV, April 1897, p. 221.
1897. A Curious Bird Note. —Nidiologist IV, May 1897, p. 104.
1897. The | Story of the Farallones | text by | C. Barlow | arranged and published by | H. R. Taylor | Editor of "The Nidiologist" | Price, 50 cents | Alameda, California . . . | 1897; 36 pp. (unpaged), 28 hftt. (of birds, scenery, etc.).
1897. Price after an Olive-sided Flycatcher's Nest. —Osprey II, September 1897, p. 13.
1897. The Golden Eagle. *Aquila Chrysaetos*. —Avifauna I, September 1897, pp. 34-36, hft.
1897. Nesting of the Olive-sided Flycatcher. —Osprey II, December 1897, pp. 47-48, hft.
1898. After the Golden Eagle. —Osprey II, March 1898, pp. 82-84, hft.
1898. The Summer Home of Vireo Solitarius Cassini and Other Notes. —Oologist XV, April 1898, pp. 29-32, hft.
1898. Appropriation of the Yellow-billed Magpie's Nest by the Desert Sparrow Hawk. —Wilson Bulletin No. 20, May 1898, pp. 40-41.
1899. Nesting of the Hermit Warbler. —Osprey III, March 1899, p. 109.
1899. Early Hummingbirds' Nesting. —Bull. Coop. Orn. Club I, March 1899, p. 24.
1899. Another Chapter on the Nesting of *Dendroica occidentalis*, and Other Sierra Notes. —Bull. Coop. Orn. Club I, July 1899, pp. 59-60, hft.
1899. The Nesting Haunts of the Black-throated Gray Warbler. —Bull. Coop. Orn. Club I September 1899, p. 96, hft.
1900. Brewer's Blackbird Nesting in Cavities. —Condor II, January 1900, p. 18.
1900. Sierran Crossbill in El Dorado Co., Cal. —Condor II, January 1900, pp. 18-19.
1900. Nest and Eggs of the California Creeper. —Condor II, May 1900, p. 59.
1900. Two more Eggs of California Condor. —Condor II, May 1900, p. 60.
1900. Nest and Eggs of the Hermit Warbler. (*Dendroica occidentalis*.) —Condor II, March 1900, p. 42, hft.
1900. [Review of Keeler's] Bird Notes Afield. —Condor II, March 1900, p. 47.
1900. An Outing Into the Pyramid Peak Region of California. —Condor II, September 1900, pp. 103-110, 3 hftt.
1900. [Review of Van Denburgh's] Notes on Some Birds of Santa Clara County, California. —Condor II, September 1900, p. 120.
1900. Some Additions to Van Denburgh's List of Land Birds of Santa Clara Co., Cal. —Condor II, Nov. 1900, pp. 131-133.
1901. Pacific Coast Changes in the Check List. —Condor III, July 1901, p. 106.
1901. Some Characteristics of the Mountain Chickadee. —Condor III, September 1901, pp. 111-114, hft.
1901. Vireo Traits. —Condor III, September 1901, p. 119, hft.

1901. *Falco columbarius* at Santa Clara, Cal. —Condor III, September 1901, p. 133.  
1901. A List of the Land Birds of the Placerville-Lake Tahoe Stage Road. | Central Sierra Nevada Mountains, Cal. | By Chester Barlow | With Supplementary Notes by W. W. Price. —Condor III, November 1901, pp. 151-184, 11 hftt.  
1902. Some Echoes from the Sierras. —Condor IV, July 1902, pp. 79-81, hft.  
1902. Some Observations on the Rufous-crowned Sparrow. —Condor IV, September 1902, pp. 107-111, 2 hftt.

### Nesting of the Townsend Solitaire.

BY A. W. ANTHONY.

N EARLY all of our western ornithologists are familiar with the Townsend solitaire in life. A few of the more favored have listened to its incomparable song, as, perched on the topmost twig of a dead fir, in the solemn silence of the high Sierras, or in deep and ragged canyons of the Rocky Mountains, this shy,



PHOTO BY A. W. ANTHONY.

NEST AND EGGS OF THE TOWNSEND SOLITAIRE.

retiring bird pours forth its very soul in a wild ringing outburst of song, that seems to descend from crags and ledges in a veritable shower of crystalized melody. With

none of our song-birds is the song so long sustained as with this species lasting as it does for several minutes, sometimes without a break. But if the beauty of its song is known to but few, still fewer can claim an intimate knowledge of its nesting habits.

During the past summer it was my good fortune to discover a nest under circumstances favorable for securing a photograph of a perfectly typical nesting site and nest, which are herewith offered to the readers of *THE CONDOR*.

The set of four eggs together with the nest has found a permanent home in the collection of Mr. J. W. Preston of Baxter, Iowa.



PHOTO BY A. W. ANTHONY.

LOCATION OF THE TOWNSEND SOLITAIRE'S NEST.

The discovery was made on July 23, on Eagle Creek, in the Powder River Mts. of eastern Oregon. The nest was built in a ditch bank about six feet above the water and less than half that distance from the top of the bank. The ditch, which has been cut to furnish water to the placer mines, was, at this point, some distance up the mountain side in the scattered fir forest. The formation, as can be seen in the illustration was firm gravel. A large rock had become loosened and fallen from its matrix. In the cavity thus formed the nest was placed, and with the long loose

grasses hanging down from the side it very successfully simulated the overhanging grasses and rootlets of its surroundings.

When discovered, the parent was brooding, but left the nest silently and disappeared, nor was she seen again while I was in the neighborhood. The eggs at this date contained small embryos.

There was no evidence of a former brood having been reared in this nest, nor had I seen any young of the species in the month or more I had been in the canyon.

The following is a description of the nest and eggs kindly supplied by Mr. J. W. Preston of Baxter, Iowa. At the base of the nest is a quantity of disintegrated trash such as bits of bark, pieces of weed stalks and finely broken old grass stems and blades, with some dirt and dust which had evidently been scratched up from the bottom of the cavity. On this slight platform are dead sticks and twigs, from larch and pine, intermixed with much old faded grass, pine needles and leaves of fir, and with some bulbs and rootlets of different grass-like sedges. The materials have been drawn into the burrowed-out cavity in the bank, leaving two-thirds of the material outward from the true nest, which is of fine dry grass stems and blades finely shredded and formed into a neat, well-rounded rather shallow cup. I note a few sprays of the long, black moss so common among the fir trees of the mountains. The structure before me is oblong in outline, being ten inches long by five wide, and three and one-half inches deep. In the inner end is formed the neat, symmetrical nest, cunningly resting in so great an amount of superfluous matter. The inside measurements are one and one-half inches deep by two and nine-tenths across. The structure is of course, somewhat compressed in boxing.

The ground color of the eggs is faint greenish-blue, blotched and marked with pale chestnut and lavender. Some of the spots are large, and a number of irregular markings resembling written characters appear, well scattered over the surface, but heavier about the larger end. Two of the eggs are less heavily marked, the specks and spots being smaller. These eggs appear somewhat elongate. The following are the measurements: .90x.64, .94x.64, .95x.65, and .96x.66; average .93x.64 inches.

### Nesting of the Abert Towhee.

BY M. FRENCH GILMAN.

**I**N PARTS of the Colorado Desert the Abert towhee (*Pipilo aberti*) is quite at home, and in the breeding season is fairly common. During a three or four years acquaintance with the species at Palm Springs, Indio, and Torros, I have made a few observations of nesting habits which may be of interest to Club members.

While more shy and retiring in disposition than the California towhee yet if undisturbed the Abert gains confidence and will make itself at home about the house. Its song or rather chirp, is more musical I think than that of its near relative, and is pitched in a higher key.

During the winter of 1899 I saw two pairs of the birds at Palm Springs and found one old nest. On May 9 of the same year I found a nest in a desert bush about two feet from the ground. The old bird slipped quietly off at my approach and revealed a set of three eggs slightly incubated. They were longer than those of the California towhee and not quite so large around. The nest was deeper cup-shaped and not quite so bulky.

The next season I saw several of the birds but found no nests. In March, 1901, in company with Nathan Hargrave of Banning, I made a trip to Toros and Martinez, thirty and thirty-five miles southeast of Palm Springs, and from fifty to one hundred feet below sea level. Here we saw several pairs and found two incomplete nests, and one containing two fresh eggs. All were in mesquite trees from three to eight feet from the ground. The birds were quite numerous and tame around the home of a Moravian missionary living at Martinez, and amused themselves by pulling up young alfalfa and millet that he was trying to raise. A few days later, March 24, at Palm Springs, I found in a desert shrub a nest with two fresh eggs.

In the winter of 1902 the birds were quite common at Palm Springs, six pairs being noted one day. In fact there were "all kinds of towhees" around that winter. One day, in the immediate neighborhood, half a mile from town, I saw the California towhee (*Pipilo crissalis senicula*), spurred towhee (*P. maculatus megalonyx*), Abert towhee (*P. aberti*), and the green-tailed towhee (*Oreospiza chlorura*).

On April 17, 1902, I found a nest in a desert bush containing two infertile eggs and a young bird. Two days later I took a set of three partly incubated eggs from a nest in a pepper tree. April 25 and 30 I found two nests in orange trees containing respectively three and four eggs each, and May 11 and 22, I found in orange trees two nests with three eggs each. The last two nests found were second sets, the birds moving a few yards from the first nests. Three seems the usual number of eggs in a set, four being found only in the one instance. Some of the birds were rather close sitters, while others slipped from the nest at my first appearance. The male birds exhibited some concern, hopping about in a nearby bush or tree and chirping uneasily.

The composition of the nests varied according to location. Those found in the desert bushes, three nests, were some distance from any house and were composed of coarse bark and a few grass stems and lined with fine bark. The other nests were in an orchard not far from a dwelling house and a barn and their composition differed from the other three. The nest found in the pepper tree was made of cottonwood bark, pieces of paper, grevillia leaves, and strips of gunny-sack and old overalls, and was lined with horse hair and fine bark. The nests in the orange trees were quite similar, varying only in detail. One was lined mostly with an old white-wash brush, pulled apart of course. One had much paper, in large pieces, jute, and cotton twine in the walls; while another displayed a fancy colored tomato can label. All were from five to ten feet from the ground.

Palm Springs seems the western limit of their range though they may occasionally stray as far as Whitewater, ten miles further west, where there are a few mesquite trees. But I have never seen one west of Palm Springs.

#### The Author of "Birds of North and Middle America."

DURING 1903, THE CONDOR will publish in each issue the portrait of an eastern ornithologist, that the Cooper Club may become better acquainted, as it were, with those *men*, whose *work* is already so well and deservedly known.

We therefore take pleasure in opening the series with the portrait of Mr. Robert Ridgway, whose work, the "Birds of North and Middle America," besides marking a distinct advance in the progress of systematic ornithology, at once places its author in the lead of contemporary systematic ornithologists. We believe we do



err in stating that when completed this work will be the largest piece of regional systematic zoology ever done by one man.

For over thirty years Mr. Ridgway's ready pen has been active, and he is the author of a long list of papers and books. Space does not permit even a complete enumeration of the longer and most important. As far back as 1869 we find "Notices on Certain Obscurely Known Species of American Birds," and during the few following years many other papers appeared. In 1874 "A History of North American Birds," (Land Birds, three volumes) by Baird, Brewer, and Ridgway was published. Besides the monograph of the Raptorial, Mr. Ridgway contributed much of the technical matter. Following this, his "Ornithology" of the Fortieth Parallel Explorations, appeared in 1877; Nomenclature of North American Birds, 1881; A Revised Catalogue of the Birds of Illinois, 1881; Water Birds of North America,



MR. ROBERT RIDGWAY.

Baird, Brewer, and Ridgway, 1884; Nomenclature of Colors for Naturalists, 1887; Manual of North American Birds, 1887; Ornithology of Illinois, Vol. I, 1890, Vol. II, 1895; The Humming Birds, 1892; Birds of the Galapagos Archipelago, 1897; Birds of North and Middle America, I: Fringillidæ, 1901, and recently (1902) part II of the same work.

As a sympathetic painter of birds, Mr. Ridgway is too well known to need mention here. His work ranks with the best that has ever been done, and its characteristics include not only fidelity to nature but a certain delicacy in execution, which renders his pictures particularly pleasing.

## Notes on Pine Siskins.

BY CHARLES W. BOWLES, TACOMA, WASH.

THESE are about the most eccentric birds that make a continuous stay in or near Tacoma. They seem more or less abundant at all times, and can be seen feeding anywhere that seeds can be found, from the vacant house-lots in the city up to timber-line on Mt. Rainier, and in all of the desolate river valleys that lead down from the mountain in different directions. The siskins are equally abundant everywhere, and unlike other birds, may be seen in flocks of from ten to fifty or more, at any time of the year, in spring and summer, as well as in autumn and winter, but the flocks are usually larger in winter.

When they begin or end the nesting season is an open question, and it is equally doubtful whether each pair has more than one set of eggs in a season or less than three. If a pair wants to nest, they leave the flock usually accompanied by two or three other pairs and build almost always in a fir. The nests are from ten to thirty feet up, probably often higher, but the birds do not frequent the very large timber much and are well out on the limb so that the nests can be reached only with a rope, or by cutting the branch. These trees are easily located, as all of the accompanying pairs pass most of their time in the tree containing the nest, chirping and twittering continuously. It is quite another proposition when it comes to locating the nest, especially when in large groves, as the structure is usually concealed by lower branches, or by moss when far up in the mountains.

Nests were found at various dates: May 16, one egg just hatching; May 21, young just hatched; May 22, three fresh eggs; August 14, three eggs fresh, and at intervening dates, at all stages of incubation. Sets of one, three, and four were found, but three seems most common.

It might be supposed that the several pairs lay in the same nest, but that above referred to, containing one egg, had three or four pairs superintending, and a nest containing four eggs was the only one seen that had only a single pair.

If the bird is on the nest she will not flush for sticks or stones thrown around her, or even a rope swinging against the twigs supporting the nest, and not usually till the collector has swung out within a foot or two of her.

The nests are about four and one half inches by two inches externally, and one and three quarter inches by one inch internally. They are composed of whatever is easiest to find; externally of twigs, cedar bark, several kinds of moss, dead grass, fir and hair, plant down and sometimes fine roots; internally of fine moss and hair or fur from cats, rabbits, cows and horses. The eggs resemble those of chipping sparrows, but are smaller and much lighter colored in every way, and apparently never have any black markings. The ground color is a delicate light green, with dots, blotches, streaks, and marblings of different shades of lavender and brown, some being quite dark. Measurements average 67x49 inches with very little variation.

The first and last nests were found in Tacoma so that altitude could not have had any effect.

### The Band-tailed Pigeon in San Diego County.

BY C. S. SHARP, ESCONDIDO, CAL.

THE band-tailed pigeon (*Columba fasciata*) is a pretty regular winter visitant to the foot-hills of San Diego county, frequently coming down to the Escondido Valley in bands of fifteen or twenty when driven out by the snows above, but generally staying in the outlying orchards and grain fields near the hills. I have heard from several persons that they nest regularly on Palomar and the Cuyamaca Mts., but had no personal knowledge of such an occurrence.

This past season, however, while spending a few days with my friends J. S. and J. B. Dixon at their ranch on Pine Mt., some twenty miles east from here, my supposition was made a certainty. On May 11, while on a hunt in their company near the top of Pine Mt., a bird was flushed by Mr. J. B. Dixon from its nest in a medium sized black oak tree. The nest, which contained one egg, incubation well advanced, was on an almost horizontal fork of two medium sized branches at an elevation of twenty-nine feet, and was quite as poorly constructed as the average nest of the mourning dove (*Zenaidura macroura*) and was readily seen through from below. Perhaps fifty small twigs and a dozen or two pine needles were used, loosely laid together in the usual dove-like way. Its measurements were as follows: Diameter, outside, 6x4 inches, inside, 5x4 inches; depth, outside, one inch and inside, three-eighths of an inch. It was scarcely more than a rude platform, the depression being caused by the bird's weight.

On June 24, 1902, Mr. Dixon, on visiting the same locality, was surprised to flush a bird again from the same nest, and took therefrom a second egg, which was too far advanced in incubation to be preserved. The measurements of the first egg were 1.60x1.10 inches; those of the second were not obtained. This nest was at the very highest fringe of the oaks where they meet the pines, elevation about 3,250 feet. Another nest taken by the same collector on May 3, 1901, also at about the same elevation on Pine Mt., contained two fresh eggs. This likewise was in a black oak on the lower fringe of pines, and was composed of the same scant material, a few twigs and pine needles, and was placed seventeen feet from the ground. No measurements of this nest were taken. The dimensions of the eggs are 1.56x1.08 and 1.55x1.10 inches. In this case also the bird was flushed from the nest.

As these nests are apparently always placed at some little distance from the ground, and are mere platforms and hard to see owing to the surrounding foliage, they are not readily discovered except by the actual flushing of the bird. One must be quick even to see the bird. It does not flutter along the ground in the manner of the mourning dove nor does it sit on a nearby branch and coo, but is off like a shot and it requires a pretty sharp eye to follow its flight through the trees.

Palomar and Cuyamaca Mountains are several thousand feet higher than Pine Mt., where these nests were found, and partake more of the higher transition and Boreal which is supposed to be the breeding area of this species. I believe that a diligent search there would prove them a much more abundant resident species than the data at present attainable would lead one to suppose.

## FROM FIELD AND STUDY

**Voracity of Albatrosses.**—In 1851 I went on a voyage in an Arctic whaling ship, the *Uncas*. When about sixty miles south of the Cape of Good Hope, we killed a large male sperm whale, tho he took down one of the boats which attacked him before he finally succumbed. A violent gale prevented us from saving all the oil from the whale, before about a week had passed, during which many wandering albatrosses (*Diomedea exulans*) and other sea birds feasted on the carcass which was along side of the ship. The screams of the albatrosses could be heard above the roar of the waves and the piping of the wind in the ship's rigging. The albatrosses were ravenous, astonishingly so. The ship's cook took about a dozen pieces of blubber that would weigh from three to four pounds each, tied a stout string about three feet long to each, then knotted the free ends together and cast them among the albatrosses which were within a few feet of the ship. In a twinkling every piece of blubber was swallowed by a different bird, which upon realizing its predicament would start to fly and turn a somersault, or set its wings deep into the water and back away from the piece of blubber it had swallowed. Their throats are capable of great expansion, tho probably somewhat less so than that of the constrictors.

After the cook had repeated this performance several times he varied the entertainment by substituting about half a dozen pieces of rough triangular firewood for the blubber. These were as bulky as the blubber and as readily swallowed, and then disgorged again.—LYMAN BELDING, *Stockton, Cal.*

**Sterna paradisæa in Southern California.**—While rowing about the tide-water flats back of Terminal Island, near San Pedro, Cal., with Mr. Geo. S. Chambliss, Sept. 13, 1902, looking after migrants, we saw a flock of about twenty-five terns resting on a mud flat. They flew up as we approached and Mr. Chambliss shot one from the edge of the flock, when they all circled about with loud cries, being joined by a number of California gulls (*Larus californicus*). Another specimen was taken. Upon examination they proved to be the Arctic tern (*Sterna paradisæa*). On the return to the landing the same flock was again seen and an immature specimen secured. So far as I can learn the only other record of *Sterna paradisæa* from California is that noted in Grinnell's *Check-List of California Birds*, from Monterey.—FRANK S. DAGGETT, *Pasadena, Cal.*

**The Number of Feathers in a Bird Skin.**—Last summer I put in spare time in making a count of the feathers on a gull and a sparrow. As there is no prospect of being able to continue the same on other species I will give the record here. These are not estimates, but actual counts feather by feather.

*Ammodramus sandwichensis*. Body including tail feathers, 762; legs, 78; head and neck, 710; wings, 349; total, 1899.

*Larus glaucescens*. Head, 2620; neck, 803; back and interscapulars, 570; breast and flanks, 880; wings, 721 + 748; legs and tail, 202; total, 6544. — RICHARD C. MCGREGOR, *Manila, P. I.*

**Do Wild Birds Die Instantly?**—Mr. Wm. Earl Dodge Scott, in an article on birds in *The Outlook* of July 5, 1902, has made a statement that is somewhat remarkable in that it shows how differently Nature reveals herself to different observers, and especially remarkable because so emphatically backed up by his reference to hunters and others whose occupations teach them to observe. He states that not only do birds die instantly—which term must be here used in a comparative sense, and is a little strong—when injured or afflicted with illness, but also that, in all his experience he has never come across a sick bird or animal in a wild state, nor met any one else who has done so. My attention was attracted by this statement, because, although Mr. Scott probably has had much greater opportunities for observation than I, my experience has been very different from his. This may perhaps be accounted for by the mildness of climate or a lower proportion of bird enemies in the Pacific Coast collecting grounds, but it is a fact that occasionally sick or suffering birds and animals are to be found in California. For example, I have found dead seabirds along the shore, with no signs of their having been injured, in a greatly emaciated condition showing that they had suffered for some time before death. I have shot land birds that were wofully thin and weak, and have even taken one or two that were so afflicted with some cutaneous disease that it seemed advisable not to handle them. The California Jack rabbit suffers to a great extent from lumps caused by a parasite, and these are sometimes so large and weaken the animal to such a degree that it can hardly get out of one's way.

Besides eye witnesses who can verify some of these observations of my own there must be others who have had similar experiences, and consequently Mr. Scott's statement can not be accepted as an absolute rule.—JOSEPH MAILLIARD.

[My own experience agrees perfectly with that of Mr. Mailliard. During December, 1900, while at Monterey Bay I saw a Heermann Gull and many emaciated Brandt Cormorants which were dying a slow death, and only yesterday (Dec. 22, 1902) saw another during a short walk near the Point Pinos Light. On Laysan Island, Hawaiian Group, I saw a number of sickly birds among the seafowl, and found a very rare petrel in this condition. Mr. Scott's rule does not obtain among mammals for beside the example offered by Mr. Mailliard, I found a large sea lion near Cypress Point which existed for days in a perfectly helpless and moribund condition until Professor Harold Heath and myself mercifully killed it. Dissection showed no internal injuries nor parasites, while the teeth rather pointed to old age.—W. K. F.]

**The Fall Migration of *Oreortyx pictus plumiferus*.**—The fall migration of the mountain quail (*Oreortyx pictus plumiferus*) appears to be influenced but little by the food supply or temperature in its summer habitat in the Sierras which it appears to leave because the proper time has arrived for its annual tramp down the west slope. The first flocks start about the first of September, or sometimes two or three days sooner. At Webber Lake after three cold cloudy days, they began to move westward August 28, 1900. When they are migrating their whistle is frequently heard, and they do not seek cover for protection but follow a wagon road, railroad, travel in snow sheds, pass near dwellings, and seem to care but little for self preservation.

Several flocks used to come down to the foot of Stanfield Hill, Yuba County, which for eight years was my favorite shooting grounds, and there spend the winter. They would arrive about the middle of October. One year they did not come at all, and I wondered if they could foretell the mildness or severity of the coming winter, for that winter was a mild one, excepting that October was unusually cold and stormy. Their regularity in leaving the mountains without regard to food, temperature, or size of young has mystified me quite as much as *Anthus pensilvanicus*, and other northern breeding birds which I found in southern Lower California. Why they should remain in the tropical climate of Cape San Lucas until the first of May and then depart for their northern breeding grounds at the same time when they start north from the much more northern Central California puzzled me, for there was no perceptible change in climatic conditions about the first of May, and indeed scarcely a change in them, at the Cape, during the two or three preceeding months.—LYMAN BELDING, *Stockton, Cal.*

**Do Quail, *Lophortyx californicus vallicolus*, Remove Their Eggs?**—One evening last spring as men were mowing the meadow, I went out to look for quail nests. In all I located eight nests, containing from three to eleven eggs. The following morning I revisited the nests and was surprised to find that four were empty.

Passing outside the field I flushed a quail from a nest containing six eggs which I recognized as a clutch (then of five) I had seen in the field the previous day. I am positive these were the same eggs as I could not mistake the peculiar marking of two of them. This second nest was forty feet from the other and on slightly higher ground. Is this characteristic of the birds? If so, how do they remove the eggs?—ERNEST ADAMS, *Clipper Gap, Cal.*

**Frozen Toes.**—I shot a golden-crowned sparrow the other day near Palo Alto that shows a curious mutilation of the feet. The outer toe of each foot is thickened and gnarled so that the joints can hardly be distinguished. A stump of the bone or claw protrudes at the tip. The whole thing reminded me of the way chickens' toes look after being frost-bitten. The sparrow, as shown by the skull, was of a last years' brood, and might have tarried in its northern home last fall until a hard freeze set in. I have seen similar scars on bird's feet before, but I can't just now remember what species. Perhaps someone can suggest a more reasonable explanation.—JOS-EPH GRINNELL.

**Food of Anna Hummingbird.**—In December, 1901, I collected a female Anna hummingbird which had eaten thirty-two green tree-hoppers, one spider, one fly, apparently a Simulium, and other insect remains which could not be determined.—F. C. CLARK, *Napa, Cal.*

**Wood Ibis in Southern California.**—The wood ibis (*Tantalus loculator*) is so rarely noted in Southern California that a flock of twenty-five seen by Joseph Grinnell and myself from the train, on the margin of a tide flat one-half mile north of Oceanside, August 5, is of especial interest. This is the first time we have seen it on this coast and the records of other observers are few and far between. On August 15, Mr. G. H. Coffin shot one from a pair at Bixby, Los Angeles Co., but not knowing of its rarity it found its way into the pot and proved "not very good eating." I was able to identify it by its head and wings.

On August 23, Mr. Coffin and T. L. Duque went out purposely for the other one and were fortunately able to secure it. Through their kindness it reached me in good condition. It

proved to be a female in well worn plumage; crop filled with fragments of aquatic insects.—FRANK S. DAGGETT, *Pasadena, Cal.*

**A Rare Land Bird Taken at Sea.**—November 13, 1901, while on *U. S. S. Pathfinder*, making the run from Nagasaki to Manila, I killed a female specimen of *Calliope kamtschatkensis* (Gm.) which had come aboard and was resting in the rigging. The position of ship at the time of capture was 127 degrees, 20 minutes E., 29 degrees, 40 minutes north. The bird was not very fat and not storm driven, as we had experienced only mild weather since leaving port. It was in all probability on its fall migration. The species occurs as a rare winter visitant to the Philippines, Grant having recorded several specimens from northern Luzon and Worcester having killed a single specimen in Mashate.—RICHARD MCGREGOR, *Manila, P. I.*

**Cryptoglaux acadica acadica in Placer County.**—February 7, 1902, while collecting near Bear River, I observed a small owl, apparently asleep, sitting on a fallen log. I had watched him for several minutes when with surprising quickness he flew from the log to a brush pile eight feet distant. Fearing I might lose him, I shot just as he alighted. He proved to be a saw-whet owl, and lying near him was a mouse still struggling. Evidently Mr. Owl was sleeping with one eye open. This is the only specimen I have met with in this county.

Pigmy owls (*Glaucidium g. californicum*) are occasionally seen here. I shot one on March 24th just at dusk. It flew from a cypress where a member of linnets were going to roost. ERNEST ADAMS, *Clipper Gap, Cal.*

**Late Nesting of Arkansas Goldfinch.**—On November 22, 1900, I found the nest of an Arkansas goldfinch among the leafless branches of a boxelder. At first glance I thought it was a nest of the previous summer but closer examination showed the tail of the sitting bird sticking over the edge. The nest contained a clutch of four fresh eggs. Being interested in a case of such unusual nesting I kept close watch of the little domicile. All went well for a week when several days of hard rains wrecked the nest. I noticed no further attempt on the part of the parent birds to resume their late housekeeping.—JOHN M. MILLER, *Partier, Cal.*

**The Snowflake and Other Unusual Birds at Marysville.**—In the winter of 1872 or 1873, at Marysville, during the memorable snowstorm, when snow was six inches deep, a flock of forty or fifty snowflakes (*Passerina nivalis*) stayed fearlessly two or three days on the steamboat landing at the foot of D street, and caused much comment. They were mentioned in the local column of the *Appeal* by someone who gave their latin name. I have not heretofore mentioned their occurrence because I did not get a specimen, and was not positive of the form or species. Although nearly the same list of species can be found in Central California every winter, that was a notable exception. At the same locality in the comparatively cold winter of 1877-78 the northern shrike (*Lanius borealis*) was quite common. I have not seen it at any other time in this state. Fine examples of the so-called hybrid flicker were very common there that winter, and their presence was apparently due to cold weather, for I have scarcely seen one like them since that time. I sent a large fine series to the Smithsonian where, Mr. Ridgway told me, as I remember, they were mounted and placed on exhibition.

The resident species remained and included the mockingbird, Pacific yellow-throat, Lawrence goldfinch, Parkman wren, and many other species. I doubt if the residents had a particle of the migratory instinct. Perhaps they never had any. During snowstorms at Murphys I have been unable to ascertain that the storms drove the residents away from the locality. I once saw a fine male Anna hummingbird feeding in manzanita (*Arctostaphylos*) on the mountain side above Murphys when the ground was covered with snow. Snowstorms seldom occur in the valleys or foothills, and any snow that falls is certain to melt in a day or less.—LYMAN BELDING, *Stockton, Cal.*

**Peculiar Habits of a Black Phoebe.**—For six years or more, I am told, a phoebe (*Sayornis n. semiatra*) has lived alone at this place and roosted, summer and winter on a branch of a rosebush under a porch. This year from January to June it could be found any night on its perch and seemed no wise disturbed by my frequent visits. In June the rosebush was torn down and for three weeks I could find no trace of the bird. Then it reappeared, alone, and ever since has divided its time between the house and barn. Why has it remained so long unmated? In former years they nested here regularly but the nearest nest this summer was over a mile from here.—ERNEST ADAMS, *Clipper Gap, Cal.*

**Destruction of Birds' Eggs: A Query.**—I have been greatly puzzled at the wholesale destruction of birds' eggs here, and vigilant watch during the nesting period failed to find the culprits. Early in the season I found shells of three black-headed grosbeak's eggs in a road, at least three yards from any suitable nesting place. The contents of the eggs had been removed through irregular holes about three-sixteenths of an inch in diameter. A few days later eggs of

other birds were found mutilated in this way.

It was my desire to rear a number of nestlings for a small aviary, but of the scores of nests I had to select from, less than a dozen remained undisturbed until the young were hatched. Only nests in and about the orchard were molested, and here I have examined over a hundred shells; a few were broken but most of them had a small jagged hole in the side. Jays and shrikes never venture about the house. A bird must do the work; or if not, what? ERNEST ADAMS, *Clipper Gap, Cal.*

**Mossy Murres.**—During the summer one often finds on Monterey Bay solitary murres (*Uria californica*) which have not been able to join the hordes of their kind at the regular breeding grounds on the Farallone Islands or elsewhere. Specimens obtained often proved to be remarkably emaciated and so weak as to be unable to fly. Perhaps a failure to properly preen themselves accounts for a greenish or brownish green accretion which forms a zone across the breast and along the sides of the body just at and a little below the water-line. One bird in particular which washed ashore near the Hopkins Laboratory last year had a broad oil green band across the breast. Microscopic examination showed the feathers of this region to be closely covered by attached masses of diatoms. I sent some of these feathers to Dr. George C. Whipple of New York, who identified the prevailing species of diatom as *Fragilaria pacifica* Grum., with some *Meridion circulare*, both of which are figured in Wolle's "Diatomaceæ of North America." The same or similar plants may be found on any floating body such as driftwood, or on piling. The birds with this conspicuous discoloration across the white under surface are sometimes unable to leave the water, the feathers having soaked through, and the whole bird become almost water-logged. These individuals may have become decrepit from old age, or accidentally disabled in some way.—JOSEPH GRINNELL.

**The Hummingbirds of Escondido and Vicinity.**—Of all the hummingbirds of this locality the black-chinned (*alexandri*) is by far the most common. The first year I collected here the hummers were very common. A small citrus nursery not far from one place seemed to abound with them, nearly all being of the black-chinned variety. Here they build their nests in the young trees, using willow, cotton, and the down from the young sycamore leaves for material. It would be hard to tell how many nests were built and occupied, but at least twenty or more were found containing eggs and young. But where have they gone?

In 1900 there was hardly a nest built in this nursery. My notes show that I observed but two nests of this species during that season, the first one being found May 2, containing one fresh egg, which I supposed hatched with the second egg in time. Two nice sets of Anna hummers were preserved during that season, being taken in May. The composition of the nests was quite different from that of the black-chinned, consisting of withered leaves and feathers, all being covered with the usual amount of spider web. These were placed in oaks well up on the hill side.

I found but four nests of the black-chinned and one of the Anna. I have failed to find this family of birds breeding here as early as recorded further north, my earliest record being that of the Anna just mentioned which was found on March 17, containing two young about one-half grown. I have noticed but one specimen of the rufous hummer here. It was a male late in the summer of 1900, so I have no reason to believe they breed here. To sum up I have recorded two species breeding, black-chinned and Anna together with one probably migratory, namely, the rufous. The Allen variety is found breeding about twenty miles further inland in the pine belt, a friend of mine having found a nest containing two eggs which he collected with one of the parent birds.—NELSON CARPENTER, *Escondido, Cal.*

**Confirmation of a Record.**—In my Sur River article in the last CONDOR (Vol. IV, p. 125), doubt was expressed as to the proper identity of certain species previously attributed to the region in a published paper by Milton S. Ray. In the case of "*Ammodramus savannarum pallidus*" (= *Ammodramus savannarum bimaculatus*) Mr. Ray has submitted for re-identification the specimen which he secured, thus substantiating his record. A seacoast breeding station for this species seems exceptional.—J. GRINNELL.

**Further Notes on the Pine Siskin.**—On September 2, I found two nests of *Spinus pinus* containing newly hatched young. As with the majority of birds in this country, it would be difficult to call these second or third sets, as nesting seems to be a continuous performance, and indulged in at any time during the season that a pair of birds happen to feel like it.—J. H. WOLLES, *Tacoma, Wash.*

**Query.**—Can any of the readers of THE CONDOR give me any information as to best places to go on the Alaskan coast for the purpose of photographing colonies of seabirds?—E. R. WARREN, *Colorado Springs, Col.*

**THE EDITOR'S BOOK SHELF**

**HANDBOOK OF BIRDS OF THE WESTERN UNITED STATES.** BY FLORENCE MERRIAM BAILEY. Illustrated by LOUIS AGASSIZ FUERTES and others. Houghton, Mifflin & Co., Boston, Mass. 1902. 12mo. xcii + 486 pages + index; 36 full page plates, 2 diagrams, 601 figures in text. Price \$3.50 net and 19 cents postage.

From HAND BOOK OF BIRDS OF WESTERN UNITED STATES.



BY COURTESY OF HOUGHTON, MIFFLIN AND CO.

NORTHERN RAVEN.

To say that Mrs. Bailey's book "fills a long-felt want," tho literally the truth, puts the matter rather mildly. Up to the present time we have lacked a *scientific* manual of our *western* birds, which could be used alike by beginners and more advanced students. Since 1895 Mr. Chapman's "Handbook of the Birds of Eastern North America" has filled this place for states east of the



Mississippi, and it has remained for Mrs. Bailey to supply the very pressing need in the west. The book is in every way adequate and will certainly exert a very wholesome influence on bird-study in the west, no doubt stimulating to good work many who, heretofore for lack of proper literature, have felt their enthusiasm scarcely equal to the task of mastering our perplexing avifauna. I suppose there is scarcely a Cooper Club member who has not longed for a handy little volume to carry to the mountains or elsewhere during excursions afield. The "Handbook" will supply this want.

The book opens with an essay by Vernon Bailey on "Collecting and Preparing Birds, Nests and Eggs," which will prove very useful to the beginner. This is followed by sections on: "Note-taking, Note-books and Journals," "Life Zones," with chart; "Migration," "Economic Ornithology," "Bird Protection" by T. S. Palmer, and "Local Lists," giving lists of birds from Portland (A. W. Anthony); San Francisco Bay (water birds, W. H. Kobbe); Santa Clara Valley and Santa Cruz Mts. (land birds, W. K. Fisher); Pasadena (J. Grinnell); Ft. Sherman, Idaho; Cheyenne, Wyo.; Pinal, Pima and Gila Counties, Arizona. Following this comes "Books of Reference," including general works, periodicals, state lists, special subjects and popular works. For the benefit of the beginner is a note on "Use of the Keys."

The systematic portion, which treats of species west of the one-hundredth meridian is divided into Water Birds and Land Birds, very clear and concise keys being given to the orders and families of each. The line figures of feet and heads render the use of these keys especially easy. There are likewise genera and species keys in their proper places. Under each genus heading is given a short statement of general characters, and the accounts of species include a brief description of plumages, together with a note on distribution, the description of nest and eggs, food, and in most cases a sketch of the habits and personality of the bird. Many of these biographical notes have been contributed by Vernon Bailey. The text is further embellished with figures of birds, and heads, from drawings, and from photographs of skins. It is unfortunate that the requirements of space necessitated an over-reduction of some of the illustrations, and thereby impaired their usefulness. This is true of only a small portion. The task of finding a bird's name has surely been reduced to a minimum. We believe it has again been demonstrated that the easiest way to identify a bird is to begin at the bottom, and to progress by using characters of real weight in classification. Many ultra-popular books have attempted to point out a royal road with grotesque keys, founded on superficial and "catch" characters, which, besides being totally inadequate, must have left the novice in a very hazy state of mind.

In nomenclature the author has wisely conformed to the A. O. U. Check-list "except that modern scientific usage has been followed in dropping the possessive form in vernacular names of species." In the rather difficult task of fitting the Check-list to our western avifauna, she has been singularly successful, largely by the sensible course of including the many recently described forms in foot-notes, with references to the original description. With this equipment both 'splitter' and 'lumper' should feel equally at home with the "Handbook."

This short notice would be eminently incomplete if mention were not made of the thirty-six well-executed full-page plates by Louis Agassiz Fuertes. Especially worthy of praise are all of them, but we find it difficult to control our enthusiasm in the case of several, particularly the Northern Raven, which is herewith reprinted, thru the courtesy of the publishers. Mr. Fuertes work is always good, but we believe this about his best.

It is difficult to do justice to a book of this character in so brief a space, and as we have already given our candid opinion of it we would close by advising all readers of this magazine to procure a copy.—WALTER K. FISHER.

THE BIRDS OF NORTH AND MIDDLE AMERICA: A DESCRIPTIVE CATALOGUE OF THE HIGHER GROUPS, [etc., 6 lines]. By ROBERT RIDGWAY. Part II. Family Tanagridæ.—The Tanager. Family Icteridæ.—The Troupials. Family Cœrebidæ.—The Honey Creepers. Family Mnioiltidæ.—The Wood Warblers. Washington: [October] 1902. (=Bull. U. S. Nat. Mus. No. 50, Part II.) Pp. i-xx, 1-834, plates I-XXII. (Outline figures of generic characters).

Part II of Ridgway's "Birds of North and Middle America" arrived on this coast in the latter part of October, a little less than a year after the first volume. Considering the immense amount of work involved it is still more surprising when we learn from the Preface that the remaining volumes are expected to go to press from now on "at the rate of two a year." Even granting that Mr. Ridgway has been compiling the subject-matter for many years, one cannot help wondering at the amount of work required alone in keeping the synonymies up to date, for we find references quoted well into 1902.

The general plan of the whole work has already been referred to, in the CONDOR of January, 1902. It happens that the present installment has mostly to do with tropical groups, including

the numerous tanagers, troupials and honey creepers. Its bearing on California ornithology is not so great as that of Part I because fewer of our species are treated. These are mostly warblers, and among them a new form is named, *Wilsonia pusilla chryseola*, the golden pileolated warbler. Unfortunately neither type nor type locality is indicated, though we may judge the latter to be somewhere in southern California. The form is readily distinguishable from the Alaskan race, *Wilsonia pusilla pileolata*, by smaller size and much yellower coloration.

*Dendroica townsendi* is said to breed "from mountains of southern California" northward. We were not aware that the species had ever been found nesting within the state. California is denied a record of *Seiurus noveboracensis notabilis*. A very good one would have been found in Belding's "Land Birds of the Pacific District," which by the way seems to us as citable in synonymy as any paper ever published on West Coast birds. But these possible lapses are not serious and no one could be expected to compile a work covering so large a region without falling into at least a small percentage of errors.

We are informed that Part III will be out before long. This will deal with the swallows, shrikes, vireos, crows, jays, titmice, nuthatches, creepers, wrens, etc., all groups well represented in our ornithology. Consequently we shall await Part III with unusual anticipation. It is not exaggerating to aver that Mr. Ridgway is accomplishing the largest and most useful piece of systematic bird work ever carried out by one man.—JOSEPH GRINNELL.

**BIRDS OF THE HAWAIIAN ISLANDS.** By H. W. HENSHAW. Thos. G. Thrum, Publisher, Honolulu, H. T. 12 mo. 146 pages, 1 plate. Price \$1.00.

In this admirable paper Mr. Henshaw has brought together in a thoroughly satisfactory manner, the result of his studies on Hawaiian birds. As a sympathetic and keen observer of Nature, the author is well known, and the present treatise is easily the best work we have on the 'natural history' of the island avifauna.

Part I consists of introductory matter, describing Hawaii as an Ornithological Field, Obstacles to Ornithological Studies in Hawaiian Islands, Destruction of Hawaiian Forests, Environmental Changes Disastrous to Hawaiian Birds, Faunal Zones, Diseases of Hawaiian Birds, Origin of Hawaiian Birds, Ornithological Knowledge of Hawaiian Natives, and History of Ornithological Investigations in the Islands, all of which is remarkably interesting reading. Part II is the "Descriptive" portion. Under each species is given a biographical sketch and a short description. The author's wide field experience with the birds of Hawaii is supplemented by information from Rothschild's, and Wilson's works. It is probable that few persons in this country have any conception of the difficulties attending the observation of native land birds in the islands. Mr. Henshaw's contribution is therefore so much the more valuable, and it is fortunate that the Hawaiian avifauna is now being so carefully studied, for many forms will doubtless soon disappear.

Ten exotic species have become naturalized in the group. Our own linnet is very much at home, and the California quail once was more abundant than now. The skylark is also common on some of the islands.

A table showing the distribution of birds "by islands" concludes this valuable paper.—WALTER K. FISHER.

**A BIOLOGICAL INVESTIGATION OF THE HUDSON BAY REGION** (N. A. Fauna, No. 12) is a valuable piece of faunal work by Edward A. Preble.

**BIRDS OF A MARYLAND FARM** is a very suggestive paper on "A Local Study of Economic Ornithology" by Dr. Sylvester D. Judd. The author confined his investigations to a farm on the Potomac River, and secured some interesting results. (Div. of Biological Survey, Bulletin 17.)

Messrs. Dana Estes & Co. announce that the fifth revised edition of the **KEY TO NORTH AMERICAN BIRDS** by Dr. Elliott Coues, will be ready in the spring of 1903. The unusual delay has been caused by the difficult 'copy' which the complete at the time of Dr. Coues' death, was rendered hard to decipher without the exercise of the most intelligent care by reason of innumerable interlineations, erasures, abbreviations, 'riders' and detached notes written in a minute and sometimes difficult handwriting. The prospectus includes many attractive features.

## CORRESPONDENCE

## TO THE EDITOR OF THE CONDOR:

In a review of my paper on Alaskan birds, published in your issue for November-December, 1902, it appears that in my published writings I have not made clear my position in regard to the desirability of recognizing geographical races of birds in nomenclature and I beg of you space in which to reply to your reviewer's claim that my "scientific" work is not in harmony with my views expressed in another connection.

My protest against the description of geographical races is not indiscriminate. It is directed toward the large amount of unsound work of this kind which has done so much to bring systematic ornithology into disrepute among those who cannot distinguish between the good and the bad.<sup>1</sup> It is not only from this, and, from what may be termed the popular point of view, that these attempts to burden our nomenclature with baseless names are to be deprecated. There are sound scientific reasons against these efforts to name definitely the indefinite. They are admirably expressed by Mr. Joseph Grinnell in your issue for July-August, 1902, page 96; Mr. Grinnell in questioning Mr. Oberholser's reference of a horned lark from Stockton, Cal., to *leucolæma*, writes: "Now may not this individual, showing an aggregate of characters nearest *leucolæma*, be not simply an individual extreme of, say, *merrilli*; which occurs in numbers in the same locality at the same season? . . . Is there not danger of denoting such extreme individuals by the names of similarly looking subspecies when their real affinities are not with those races at all? It is very evident that mistakes of this kind will lead to wrong deductions in regard to migratory movements, and distribution in general, which is after all where the chief value of distinguishing geographical races comes in."

This is well put and the same argument could be used in many cases to show that in such important phases of bird study as migration and winter distribution excessive subdivision is positively prejudicial to accurate work.

The question who shall decide what birds are "worth the naming" has only one answer; the American Ornithologists' Union's Committee on Classification and Nomenclature is the court in which a bird's claims to recognition by name are to be established. Composed of seven expert ornithologists, representing varying points of view, no better judicial body can be obtained. Let us see, then, what has been this Committee's attitude toward the systematic work of the past sixteen years.

At the twentieth Congress of the American Ornithologists' Union, held in Washington, D. C., in November last, Dr. J. A. Allen presented a paper on this subject entitled 'The A. O. U. Check List—Its History and Its Future,'<sup>2</sup> in which it was shown that only 52 per cent of the proposed modifications in the "Check List" have been endorsed by the A. O. U. Committee on Classifications and Nomenclature. Dr. Allen adds: "If there had been no Committee to which these 500 or more questions could have been referred for a formal verdict it is perhaps easier to imagine than to describe what would have been the condition of the nomenclature of North American birds in 1902."

Thus it appears that the protest against much of the systematic work of today comes not only from "specimen labelers and popular writers," as my reviewer tells us, but from the representative, scientific ornithologists composing the A. O. U.'s Committee on Classification and Nomenclature—a very practical kind of protest which, as Dr. Allen well states (l. c.), has saved us from "chaos."

Yours respectfully,

FRANK M. CHAPMAN.

American Museum of Natural History, New York City, Dec. 19, 1902.

## EDITOR OF THE CONDOR:

I note that a correspondent in the November-December CONDOR, "raises a voice of protest" against what appears to him to be a "cruel indifference" to or a lack of sympathy with bird life. The present writer, without raising his voice to any unpleasant inflection, would like to whisper a few mild suggestions to the Pasadenan.

My friend, convictions are fine things to have, and we are honored in their possession. But it is usually best to keep them, for the disseminators of convictions may do a lot of good—or otherwise. I fear in the present instance, however praiseworthy your intentions, it was—otherwise.

Larger men than you and I, my friend, have smote the air on this question and left no impression on the breezes which blow where the birds still sing over their graves. There is good and bad in it, and it will take more than plenty of ink and a pen to settle the question to the sat-

<sup>1</sup> Cf. *Science*, 1901, p. 316; 1902, p. 229.

<sup>2</sup> See *The Auk*, Jan. 1903, pp. 1-9.

isfaction of all concerned. I could argue it, and ask which does the most harm, a spyglass ornithologist with a ready imagination, who describes things we never heard of before (and which never really happened), or a sane student of birds who is obliged to use a gun, and whose writings may be depended upon for information and not for imagination? I might do this, but I prefer not to walk in where angels fear to tread.

There are several things well said, and sentiments given noble expressions in your communication, and with these I have no quarrel; but it is the evil men do that lives after them. It is the evil of the writer who talks of "dead and stuffed bird skins," who strains a point to serve his argument, even though the ill-judged reflection be at good men and better ornithologists than he. Here is where the damage of careless spilling of ink on these questions comes in.

You are not fortunate in paraphrasing what you say is a "very bad popular saying," concerning Indians, as, that collectors seem to believe "the only good bird is a dead bird." It may be to your mind a very bad saying that "A good Indian is a dead Indian," but very often it has been true. The late Major Bendire hunted Indians and birds in the same country and killed both with equal lack of compunction, when the blood of murdered settlers cried aloud for vengeance, or the authorities at the National Museum wanted positive identification. A dead Indian was a very good Indian to Major Bendire, and a dead bird in the hand looked better to him where the identity of a rare set of eggs was in question than a squint at a bird through a glass. He used the spyglass on the Indians.

You refer to an "interesting and excellently written article" in the September-October CONDOR on the rufous-crowned sparrow, "the description of a social colony on a little hillside opposite a schoolhouse," and add "where the birds obtained a part of their living no doubt from the scraps remaining of the children's lunches." Then you go on to speak of these "feathered friends" which the teacher, "if she was up-to-date," you think, taught the children to love and protect.

You don't know anything about it, but to add a nice little pathetic touch you "think" all this! Then you go on to score the ornithologist who "collected" the parent after finding the nest, as you say, "merely for dissection to show that her nest of eggs was complete." This statement is not merely absurd, for it is at variance with the facts; it does injury.

The schoolhouse referred to (and I know the country) is properly speaking, in the mountains, and if the nice little school boys spoken of were able to get anywhere near these wary sparrows they probably used a slingshot on them. Without the bird for positive identification the valuable and interesting article, which the southern critic praises so highly, would never have been possible. The bird was shot and properly shot, for identification, as the set of eggs was extremely rare, and was not sacrificed merely to satisfy a puerile curiosity as to a full nest complement, as the well-meaning critic asserts. Without positive identity what could have been written as to the singular differences in color of eggs of this same species? As to the number of skins secured from this favored patch of hillside, the species is rare, and doubtless they are needed in collections. Certainly they will not be missed up there in the hills where we may infer the "Dago" school boy, if he takes notice at all, shies stones at them on his happy schoolward way. There will be rufous-crowned sparrows on many a hillside when you and I are where the daisies grow!

H. R. TAYLOR.

Alameda, Cal.

## GENERAL NEWS NOTES

The American Ornithologists' Union held its twentieth Annual Congress at Washington, D. C., November 17-20, 1902. All the officers for 1902 were re-elected. Harry C. Oberholser was chosen Fellow and the following Members were added: Andrew Allison, Paul Bartsch, A. C. Bent, W. C. Braislin, Hubert L. Clark, A. H. Howell, E. A. Goldman, F. H. Knowlton, A. H. Norton, T. G. Pearson, S. F. Rathbun, P. M. Silloway, and C. O. Whitman. The program was one of unusual interest and the attendance exceeded that of any previous meeting. The Union will meet in Philadelphia, November 16, 1903. (See Editorial column).

During the Christmas vacation W. W. Price, as has been his wont in past years, took a party of young men on a hunting and collecting expedition. Last year they descended the Colorado from The Needles in boats, and the two seasons previous were spent on the Colorado south of Yuma, and about the head of the gulf. This year the party penetrated the mountains of northern Sonora in quest of big game. Mr. Price is well known as a prince of good fellows in camp, and it is probable the party had a thoroughly enjoyable time, besides acquiring valuable material. Later we hope to publish an account of the trip.

When we last heard from Joseph Mailliard he was in Valparaiso, Chile, and not altogether infatuated with the place. He finds that he arrived during the closed season for game, and as all birds are classed as such, the outlook for collecting is hardly reassuring. A stranger is able to collect only on large ranches where the owner is sufficiently prominent to hinder constant molestation by "minions of the law." We hope our friend has found the situation more favorable than the outlook would seem to have indicated and has already an interesting representation of native birds.

Recently we had a letter from E. A. Goldman from Zacatecas, which is one of the famous old mining cities of Mexico. At present writing Mr. Goldman is collecting near Ocotlan, Jalisco, in the interests of the Biological Survey.

Wilfred H. Osgood paid us a flying visit en route to Washington from Alaska, where he has spent the summer in the interests of the Biological Survey.

Lyman Belding, our veteran ornithologist, is now at Pacific Grove. Mr. Belding and the Editor spent two pleasant days along the coast in quest of waterfowl.

Joseph Grinnell visited his home in Pasadena during Christmas week and was present at the annual meeting of the Southern Division.

When last heard from, R. H. Beck was in Washington, D. C., hatching schemes for a new collecting trip.

Malcolm P. Anderson recently returned from a collecting trip on the Stikine River, Alaska.

Ralph Arnold is now in Washington, D. C.

## MINUTES OF CLUB MEETINGS

### Northern Division

NOVEMBER.—The Northern Division met at 405 Kipling St., Palo Alto, November 1, 1902, President Grinnell presiding. In the absence of Mr. Barlow, T. J. Hoover was appointed secretary pro tem. The club then listened to a talk on the "Birds of Laysan Island," by W. K. Fisher. A paper on the "Faunal Areas of California," by Frank Stephens, was read. Mr. Grinnell told of his experiences with "Mother Cary's Chickens" on Los Coronados Islands. After a short recess the minutes of the previous meeting were read and approved. W. M. Pierce was elected to active membership and Messrs. H. W. Fowler, J. M. Miller and Miss Agnes Frisius were proposed for membership. A communication from Mr. A. M. Shields tendering a gift of birds and eggs to the Club Museum was read, and the President on motion was instructed to appoint a committee to visit Mr. Shields. T. J. Hoover was appointed as a committee. The Club here adjourned by declaration of the President to discuss a subtle brew. After refreshments a communication from Frank Stephens proposing the preparing of a map showing the faunal areas and life zones in California was discussed. After other sundry business nominations for officers for the year 1903 were then called for. Mr. Barlow was nominated for President. For Senior Vice-President, Messrs. Hoover, Emerson and Snyder; for Junior Vice-President, Messrs. Emerson, Thompson, Skinner, Cohen and Keyes. Mr. Keyes was nominated for Secretary. The following nominations for Business Manager-Treasurer were made: C. Barlow, J. Grinnell, T. J. Hoover.

Mr. Emerson invited the Club to hold its Annual Meeting at his home in Haywards. The Club then adjourned to meet at Haywards, January 10, 1903.

T. J. HOOVER, Secretary pro tem.

JANUARY.—The ninth annual meeting was held at the residence of W. Otto Emerson, Haywards, Saturday evening January 10. The gathering was one of the largest in years, there being about eighteen members present and a goodly number of visitors. Mr. Henry Reed Taylor was unanimously elected President for 1903. The full minutes will be published in the March issue.

### Southern Division

NOVEMBER.—The Division met at the residence of Mr. F. S. Daggett, Pasadena, on the evening of Friday, Nov. 28. Mr. Daggett presided and there were five other members present, Messrs. B. Franklin, O. W. Howard, Edw. Howard, Prof. Conant and H. S. Swarth. Mr. Chas. Richard-

son was present as a visitor. Mr. Daggett proposed the name of Mr. Chas. Richardson for active membership; and the resignation of Dr. J. H. McBride was tendered and accepted. The nominations for officers for the ensuing year took place and the following names were proposed: President, F. S. Daggett; Vice President, Howard Robertson; Secretary, H. J. Leland; Treasurer, W. B. Judson and H. S. Swarth.

H. S. SWARTH, Sec'y pro tem.

JANUARY.—The annual meeting of the Southern Division was held on Saturday evening, January 3, 1903, at the residence of Mr. F. S. Daggett, Pasadena, with the following members present: Messrs. W. B. Judson, H. J. Leland, H. Robertson, H. S. Swarth, Prof. Conant and Chas. Richardson. Joseph Grinnell, President of the Club at large, and Fordyce Grinnell were also present.

The death of Mr. A. Stert was reported and the Secretary was instructed to prepare a suitable memorial. Mr. Chas. Richardson, whose name was proposed for active membership at the October meeting, was duly elected to membership. Mr. Daggett proposed the name of Mr. Herbert Brown for membership. The election of officers to serve during 1903 resulted as follows: President, F. S. Daggett; Vice-President, Howard Robertson; Secretary, H. J. Leland; Treasurer, H. S. Swarth. Mr. Daggett reviewed in general the work during the past year by the members of the Southern Division and made some valuable suggestions for future study. A temporary adjournment was taken to another room where refreshments were served. Mr. Grinnell was installed in the chair and he addressed the meeting on the past work and future plans of the Club organ, THE CONDOR. Mr. Swarth exhibited a number of skins of the rarer Arizona birds, among which were specimens of the black-fronted warbler, painted redstarts, mountain song sparrows, rivoli, broad-billed, and white-eared hummingbirds, olive warbler, yellow-throat, etc. Mr. Daggett exhibited several skins of the bicolored and red-winged black birds, pointing out the difference of the true bicolor variety and that supposed to be bicolor taken here. Later in the evening he presented a paper "Agelaius gubernator," which covered his illustration entirely. Meeting adjourned.

HOWARD ROBERTSON, Secretary.



PHOTO BY E. C. STARKS

HAPPY NEW YEAR!

## THE CONDOR

An Illustrated Magazine of Western  
Ornithology

Published Bi-monthly by the Cooper Ornithological Club of California

WALTER K. FISHER, Editor, Palo Alto  
JOSEPH GRINNELL, Business Manager and  
Assistant Editor, Palo Alto  
FRANK S. DAGGETT, Associate Editor

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### EDITORIALS

Years are longer here in California than in most places east of the Sierras, but despite that they go quickly enough. Few of us realize that THE CONDOR is commencing its fifth volume. Four years make but a short period in the span of a man's life, but time is not necessarily a yard stick for experience. Those who were responsible for the magazine had new worlds to conquer, and much has been accomplished in a short time, even under many distinct drawbacks. It has

WHICH IS GOOD been amply demonstrated that some medium of publication or interchange of ideas is vital to the welfare of any organization, great or small, and the experience of the Cooper Club has certainly been no exception. With the founding of the "Bulletin" new interests arose to meet added responsibilities, and fresh enthusiasm rapidly increased the operative force, until now we have enlisted more active workers within a limited field than any other organization with similar ideals.

While we, as a club, reflect with pardonable pride on the good results of this laudable movement, we must not forget that the result has been accomplished only by steady and continued effort. He, who more than any man has been responsible for the growth and prestige of the club, has passed quietly from among us. Had there been no Chester Barlow the Cooper Club would not be here today, and there would be no occasion for these words. As Mr. Taylor well says, Barlow *was* the Club, and there are few of us indeed, who escaped his contagious enthusiasm. In common with many organizations of a similar nature, our club has passed thru trying times, and it was only by virtue of a compelling personality to take the lead, that the society lived to tell the tale.

OF A MAN AND THE FUTURE But all this is now ended, and we have surrounded

ourselves with safe-guards for continued usefulness. So much for the work of our departed friend. As a club we can do no better to show our appreciation of his efforts than to continue the good work he did so much to perpetuate. Actions speak when words are silent, and it behooves everyone to lend a hand. Whatsoever is worth while has its cost, and in this case the price is work and thought—not spasmodic, but steady and efficient. The boom days of our existence are now over and we have settled down into a conservative epoch of hard work, not with diminishing enthusiasm but with even added strength to meet the demands of our increasing responsibilities.

Our Tenth Anniversary meeting will come off in May, and everyone should plan to attend in order to make the occasion the most successful in the history of the Club. Altho not definitely decided upon TENTH ANNIVERSARY MEETING extend over several days and will take place at the time of the regular bi-monthly session, early in the month. In our next issue we hope to publish definite arrangements.

In this connection it is a pleasure to note that a number of eastern ornithologists have signified their intention of visiting the Club and holding an "extra session" of the A. O. U. out on the coast, at the time of our tenth anniversary meeting. In the last August CONDOR our late editor strongly advocated holding an A. O. U. meeting somewhere in California, and it is gratifying that the suggestion met with such quick response. Altho the contemplated visit is now only a probability, we hope it will shortly assume the shape of reality. If we read the signs aright our spring meeting, combined with that of the American Ornithologists' Union, will mark the beginning of a new era in the activities of the Club, and will infuse an added interest and enthusiasm for future work. It will also bind in closer ties the western and eastern workers, and bring to each group a clearer understanding of what the other is trying to do.

During 1903 THE CONDOR will pursue much the same course as in past years, endeavoring to present the freshest bird news in each number. If any policy is followed it will be to emphasize the study of bird habits and everything that pertains to the domestic economy of our western species. Sketches of expeditions and trips afield will be contributed DURING 1903 by those prominent in such work, and there will be also many articles on nidification and life history, besides faunal and technical papers from time to time. In each number will be published the portrait and a short sketch of a prominent eastern ornithologist. The interests of the Club-at-large will, as heretofore, occupy a prominent place. We hope during 1903 to make a bigger showing in the number of our contributors than ever heretofore.

California is a big state, and our members are scattered pretty well from one end to the other. Our circles of acquaintance are limited, and THE CONDOR proposes to enlarge them, if the scheme strikes all concerned favorably.

In each number we would like ANENT A to publish the portraits of say six SCHEME members, and to continue these symposia as long as possible. Of course the matter rests with you, the Club members. If you like the idea, signify your approval by sending us your photograph and we will begin the series as soon as there are portraits enough to insure success.

In the current volume and those to follow THE CONDOR will endeavor to present as many short notes as possible. We believe no one feature has so much intrinsic value. With this end in view we ask every one to explore his past experiences, at home A REQUEST or afield, for items. Do not wait for remarkable or unusual incidents. One must remember that there are plenty of facts to be learned about our commonest birds, and that what thru familiarity may seem commonplace with you, usually is interesting to others. At any rate send in plenty of short notes, and let us be the judge.

We mail with this issue the index to volume IV, which has been carefully prepared by Mr. Grinnell.

To Mr. H. R. Johnson of Stanford we extend our best thanks for designing the magazine heading.

THE CONDOR is now mailed from Palo Alto tho still printed by Mr. Nace in Santa Clara. The change was made to avoid the confusion occasioned by the shifting of the editorial office.

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Revised to January 1, 1903.

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# THE **C**ONDOR

A Magazine of Western  
Ornithology



Volume V

March-April, 1903

Number 2



COOPER ORNITHOLOGICAL CLUB



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Volume V

March-April, 1903

Number 2

## A Partial List of the Birds of Keam Canyon, Arizona.

BY A. K. FISHER.

IN the summer of 1894 the writer had occasion to visit Keam Canyon, Arizona, for the purpose of studying the mammals and birds of the region. To reach this interesting locality it was necessary to make a stage trip of over twenty-four hours duration, northward from the town of Holbrook on the Santa Fe Pacific Railroad.

Leaving Holbrook on the morning of July 17, 1894, we soon ascended the limestone rim of the Little Colorado Valley and passed out upon the mesa beyond. Off to the northward the distant landscape was clothed in a delicate purple, the varying shades producing an effect of surpassing beauty and one not easily forgotten. From this point of vantage it could be seen that beyond the Le Roux wash twenty miles away the route gradually ascended toward the distant horizon, and promised to be more interesting than the sandy waste immediately before us. The long journey through the day and night was at times somewhat monotonous, but as one of the horses had previously never worn harness, it was prudent to be watchful. North of the Le Roux wash we passed one of the big corrals with long extending wings, now falling into decay, into which in the early days of plenty the Navajos used to drive whole bands of antelope. It was admirably situated for the purpose in a depressed valley, the steep sides of which together with the supplementing fence of interwoven juniper and pinyon boughs, made it impossible for the animals to escape when once they had entered.

Late in the afternoon a heavy thunderstorm broke upon us and the deluge soon filled the washes, so that within one short hour their beds of dry, burning sand were swept by roaring, seething masses of turbulent waters, which made traveling in the low country anything but certain. At one place just at dusk we passed a lot of naked Navajos who had taken advantage of the rain and were busily engaged in drowning out prairie dogs by directing the streams of water into

the burrows. As the young animals were nearly grown and each burrow contained from six to eight individuals, the Indians must have received a generous supply of meat. After night-fall our journey was less wearisome, the rain had ceased, the treacherous washes were less frequent or formidable, the unruly horse had settled down to an even pace, and we rode along with comparative comfort. From time to time the shadowy form of a passing Indian, or the dim outlines of the hogans showed that we were among the Navajos and gradually approaching our destination.

Keam Canyon lies within the Moki Reservation, eighty miles north of Holbrook and about one hundred miles northeast of the San Francisco mountains, the highest peak of which is plainly visible from the bluff shown in the accompanying plate. The Moki name of this mountain is Ne-vat-i-kiobi, which means the house of the snow. At the trading post of Mr. T. V. Keam, in the vicinity of which most of the observations in the present paper were made, the trend of the canyon is towards the northwest, but a few miles lower down it turns to the west and broadens into a more extensive valley. Thirteen miles from this post is the Mesa, on which the Moki pueblos of Tewa, Sichumovi, and Wolpi are situated. The portion of the valley which interests us is from 400 to 800 yards in width and is depressed one hundred feet or more below the surface of the surrounding mesa. The side walls are picturesque and present an endless variety of forms, from clear cut perpendicular cliffs to masses of giant boulders interspersed with a more or less luxuriant growth of pinyon and juniper. Erosive action has left its mark in the softer material, and produced caves of varying size which furnish homes for some of the birds and mammals of the region. Out-croppings of coal are quite numerous, and heaps of ash, together with bits of pottery, show where the aborigines utilized this fuel in the preparation of their wares.

The canyon is well known to many anthropologists and others who are interested in the ritual customs of the Moki, and who have traversed the long stretches of desert between the little town of Holbrook and the cliff dwellings on the First Mesa to witness the celebrated snake dance and other Tusayan ceremonies. Mr. Keam's genial hospitality towards the many strangers who have visited this far-off land is proverbial and has earned for him a wide reputation.

Anyone unacquainted with the conditions of bird life in the arid regions would be disappointed with the small number of species found at Keam Canyon, and would be surprised at the meagre representation of most of them. Although considerable time between July 18 and August 3 was devoted to exploring the canyon and surrounding mesa for the purpose of observing birds, only thirty-nine species were found, and of these seven were included on single records. The doves (*Zenaidura macroura*) were fairly common throughout the canyon, and considerable numbers visited the little rivulet that flowed from a covered spring in a side canyon back of the house, where they bathed and drank at all times of day from sunrise until long after dark. Turkey vultures (*Cathartes aura*) were almost always present, and about fifty roosted in a clump of dead pinyons below the northwest rim of the canyon within plain view of the house. Among the birds of prey the little sparrow hawks (*Falco sparverius deserticolus*) were the commonest, and were often seen hunting for lizards and insects, or flying about their nesting places in the crevices and erosions of the canyon walls. One prairie falcon (*Falco mexicanus*) was seen on July 18, and a week later a fine adult duck hawk (*Falco peregrinus anatum*) flew close to the house toward evening and disappeared along the edge of the cliffs beyond. Although no golden eagles (*Aquila*) were seen at large, as many as a dozen were counted at the Moki pueblos, where they are used in con-

nection with certain ceremonies. The western redtail (*Buteo borealis calurus*) was seen daily, and on one occasion a few characteristic feathers lying beside a half-eaten jackrabbit showed almost conclusively the author of the good work. The great horned owl (*Bubo*) was not seen, but its wierd notes were occasionally heard at dusk and early morn. Tracks were seen of the roadrunner (*Geococcyx californianus*) which is well known to the Mokis under the name of Hosh-bo-a.

A solitary hairy woodpecker (*Dryobates villosus* subsp.?) which busied itself among some pinyons and junipers along the canyon wall was the only representation of the family observed. A fine specimen of poorwill (*Phalacroptilus nuttalli*) was secured on the evening of July 19 as it was flying over the canyon bottom in front of the house. It would have been impossible to have seen it but for the light color of the ground over which it passed, like a fleeting shadow, in pursuit of insects. The Mokis who saw the specimen were much interested in it and designated it by the name of Ho-witz-ko. Nighthawks were common and were heard booming every evening. A colony of white-throated swifts (*Aeronautes melano-leucus*) bred in the holes in the canyon walls back of the house, and were almost always in sight, skimming rapidly along the edge of the mesa or darting out high over the valley into which, however, they rarely descended. A female black-chinned hummer (*Trochilus alexandri*) was secured on July 31, from its perch on a dead-topped juniper, and a fine male rufous hummer (*Selasphorus rufus*) was killed July 30 among some flowers along the edge of a trail. Several other hummers were seen at different times, but at too great a distance for positive identification. Among the flycatchers the Arkansas kingbirds, ash-throated flycatchers and Say phœbes were seen, the latter, which lived among the giant boulders of the canyon walls, being the most abundant. Pinyon and Woodhouse jays were seen every day on the mesa and a few were seen flying across the valley. Although the season was not far enough advanced for the pine nuts to contain kernels, nevertheless cones were found which had been mutilated by these jays.

The raven (*Corvus corax sinuatus*) is one of the commonest birds in the valley, and on account of its great fondness for corn and melons is one of the most troublesome to the Mokis. Hundreds congregate along the edges of the cliffs and other prominent places in the vicinity of the gardens, and should the old women who are placed on guard to watch the fields from early morn until nightfall relax their vigilance for a moment, the birds are sure to take advantage of the opportunity. The gray vireo (*Vireo vicinior*) was tolerably common, though its presence might easily have been overlooked except for the characteristic song which was often heard while the birds remained hidden amid the dense foliage of the pinyon and juniper. A thrasher, which the Mokis called Kot-to-zi, was not uncommon, but was extremely wary and difficult of approach. It was not satisfactorily identified until July 31 when a chance shot secured a specimen which proved to be the Bendire thrasher (*Toxostoma bendirei*). This capture would have been a surprise but for the taking of an immature bird at Holbrook a short time previously. This species, which is commonest throughout the area occupied by the giant cactus, evidently has extended its range to this remote corner of Arizona by a route along the Colorado and Little Colorado Rivers and their tributary valleys.

The following list includes all the species observed. Though the number represented is not large and the species are not especially interesting, the fact that the list covers a comparatively little known region is considered a sufficient excuse for its publication:

*Zenaidura macroura*  
*Cathartes aura*  
*Buteo borealis calurus*  
*Aquila chrysaetos*  
*Falco mexicanus*  
*Falco peregrinus anatum*  
*Falco sparverius deserticolus*  
*Bubo virginianus pallescens*  
*Geococcyx californianus*  
*Dryobates villosus* (subspec?)  
*Phalacroptilus nuttalli*  
*Chordeiles virginianus henryi*  
*Aeronautes melanoleucus*  
*Trochilus alexandri*  
*Selasphorus rufus*  
*Tyrannus verticalis*  
*Myiarchus cinerascens*  
*Sayornis saya*  
*Apelocoma woodhousei*  
*Corvus corax sinuatus*

*Cyanocephalus cyanocephalus*  
*Icterus bullocki*  
*Carpodacus mexicanus frontalis*  
*Chondestes grammacus strigatus*  
*Spizella socialis arizonæ*  
*Amphispiza bilineata deserticola*  
*Petrochelidon lunifrons*  
*Tachycineta thalassina*  
*Stelgidopteryx serripennis*  
*Lanius ludovicianus excubitorides*  
*Vireo vicinior*  
*Mimus polyglottos leucopterus*  
*Toxostoma bendirei*  
*Salpinctes obsoletus*  
*Catherpes mexicanus conspersus*  
*Parus inornatus ridgwayi*  
*Psaltiriparus plumbeus*  
*Poliophtila plumbea*  
*Sialia arctica*

### Feathers Beside the Styx.

BY EDGAR A. MEARNs.

STRANGERS to the Yellowstone National Park are apt to regard the truest statements respecting its wonders as nothing short of startling. Possibly their confirmation may cause the pendulum of credulity to swing too far in the opposite direction. Certain it is that some of the tales of the Park to which credence is generally attached require scientific corroboration, and none more so than those which relate to supposed death pens in which animals, large and small, perish in numbers.

When traveling with my wife through the Yellowstone region, fourteen years ago, vague accounts reached us of hollows and places filled with deadly gases into which all creatures passing must leave hope and life behind. These whisperings, later, culminated in the story of the tragic death of "Wahb," the grizzly, from the facile pen of Ernest Thompson Seton. On returning to the Park, in April, 1902, I learned that to doubt the existence of a valley or canyon of death, bestrewn with the decaying carcasses of bears and other beasts, somewhere in that region, was to display hopeless ignorance of fact. Men of high position and undoubted veracity had testified, as eye-witnesses, to these things; but Captain Hiram M. Chittenden, U. S. A., an engineer officer charged with carrying on extensive improvements now in progress in the Yellowstone National Park, tells me that, notwithstanding his great familiarity with the topography of the Park, no such place is known to him. When such an alleged locality was reached the huge dead beasts had vanished, and no more than a fragment of bone such as might be found anywhere in the region was visible.

Though we were unable to set foot on the bank of a veritable River Styx, any

tourist may conveniently visit the "Stygian Cave," at the Mammoth Hot Springs, and find there the bodies of many little birds whose spirit passed away as they entered. There are many such spots about the mineral "formation," almost two miles in extent, around these boiling springs, where Fort Yellowstone is located. Mrs. Pitcher, wife of the present Park Superintendent, showed me some of these "Stygian" caves, in April, 1902; and, thereafter, I often examined such "bird caves" as I had found, or searched for others. In any hollow capable of holding the heavy gas (supposed to be carbon dioxide) fatal to animal life, dead birds were liable to be found, provided that the usual accompaniment of heat and moisture (from steam), and sulphurous odors (from emanating gases) were found. Most of the dead creatures were birds; but there were, besides, many insects, and a few small mammals. Doubtless larger animals may have been killed in some of these pockets filled with gas, although the flame of a candle was rarely extinguished before it came near the ground. When picking up dead birds I always took the precaution to hold my breath. Moisture and a distinct warmth to the ground were always felt. The effect on bird bodies was to cause rapid decay, the flesh quickly disappearing, then the bones, and lastly, the feathers. Upon the latter a caustic action was observed, the bases of the feathers being eaten away, until, in some instances, only the tips of the feathers remained and retained the form of the bird, at last sinking flat upon the ground and soon leaving no trace. The remains were sometimes so indefinite that it was impossible to identify all of the species, or to make an exact count. In fact, I made no systematic effort to observe and record regularly the effects of these caves on the bird life of the locality, although my note books contain some data.

On first visiting the caves, in April, remains of the magpie, Townsend solitaire, pink-sided junco, pine siskin, and Rocky Mountain nuthatch were found.

May 16, many pink-sided juncos, warbling vireos, and a few Cassin purple finches, and one Macgillivray warbler were among the victims, at the few caves then known to me. At the "Stygian Cave" proper, in dangerous proximity to the deadly gas, a pair of Townsend solitaires were engaged in building a nest in a hollow of the rock. On my next visit the nest had been finished, but both of the little architects were lying dead at the bottom of the cave, pathetically near each other, their outspread wings touching one another. They perhaps descended to gather building materials, or to drink.

During June and July dead birds were seen whenever the caves were visited. Among them were always some Townsend solitaires, Audubon warblers, and Louisiana tanagers. It almost seemed that the Stygian caves possessed some peculiar attraction for the unfortunate birds; but it is probable that a damp and shady nook offered a sufficient allurements, and that curiosity prompted some to follow companions that had preceded them.

August 1, 1902, eleven birds were found dead within the cavern known as the "Stygian Cave," as follows: Two pine siskins, four pink-sided juncos, (all young of the year, with striped underparts), two warbling vireos, two Louisiana tanagers (adult female and young of the season), and one mountain chickadee.

During the September migration an unusually large number of birds perished, but I have kept no record of them. The largest number were pink-sided juncos.

October 15, 1902, dead birds were found in twelve caves. In all fifty-eight birds and a mouse (*Peromyscus texanus subarcticus* J. A. Allen) were counted. These were: one Clarke nutcracker, six pine siskins, thirty-five pink-sided juncos, one green-tailed towhee, one Louisiana tanager, four red-breasted nuthatches, four mountain chickadees, three Townsend solitaires, and three western robins.



Of these, four pink-sided juncos, three red-breasted nuthatches, and two mountain chickadees were fresh enough to be skinned, and were preserved as specimens. Two days later, the only fresh corpses were a mouse, a grasshopper, and a Rocky Mountain creeper, which latter was preserved, having just died. During the ensuing week no additional birds were asphyxiated.

Although unable to estimate the number of birds that perished in the caves adjacent to the Mammoth Hot Springs during the past season, I am of the opinion that the number reached into the hundreds if not thousands. Birds were found dead in about thirty different caves and hollows about the "formation," between Snow Pass and the Mammoth Hot Springs Hotel, near which latter the lowest "bird cave" was discovered. At the suggestion of Mrs. Charles B. Byrne, who visited the Stygian caves in 1902, I requested the Park Superintendent to have the most important caves provided with wire screens for the purpose of keeping birds from entering them, and this will doubtless be done before another season, as the Superintendent and his wife are much interested in the matter.

Following is a list of the species of birds which I found dead in the "Stygian" caves, from April to December, 1902:

1. *Pica pica hudsonica* (Sab.). Black-billed Magpie.
2. *Nucifraga columbiana* (Wils.). Clarke Nutcracker.
3. *Carpodacus cassinii* Baird. Cassin Purple Finch.
4. *Spinus pinus* (Wils.). Pine Siskin.
5. *Junco mearnsi* Ridgw. Pink-sided Junco.
6. *Oreospiza chlorura* (Aud.). Green-tailed Towhee.
7. *Piranga ludoviciana* (Wils.). Louisiana Tanager.
8. *Vireo gilvus* (Vieill.). Warbling Vireo.
9. *Dendroica auduboni* (Towns). Audubon Warbler.
10. *Oporornis tolmiei* (Townsend). Macgillivray Warbler.
11. *Certhia americana montana* (Ridgway). Rocky Mountain Creeper.
12. *Sitta carolinensis nelsoni* Mearns. Rocky Mountain Nuthatch.
13. *Sitta canadensis* Linn. Red-breasted Nuthatch.
14. *Parus gambeli* Ridgway. Mountain Chickadee.
15. *Myadestes townsendii* (Aud.). Townsend Solitaire.
16. *Merula migratoria prochinqua* Ridgway. Western Robin.

### Some Unusual Nests of the Bullock Oriole.

BY C. S. SHARP, ESCONDIDO, CAL.

The popular idea of an oriole's nest seems to be that it is always pensile, supported wholly from the top and the lower part, large and purse-shaped, hanging free to sway with every breeze. I have never seen an illustration of one that was not of this description.

In my observations of nests of the Bullock oriole (*Icterus bullocki*) I have found two distinct types, and presume the same forms are found in the nests of its nearest eastern relative (*galbula*), the nests of others of the genus hardly coming into comparison.

These two types are the truly pensile and what is generally termed the semi-pensile form, although, in reality, it is not pensile at all. With *bullocki* the latter

seems to be the more common form. Nests of this type may be placed in an upright fork, or attached to a branch or twig on one side only, the other side being supported by some nearby leaf, stem or branch, or may be placed between two or more nearly parallel branches or close against one with the small lateral twigs embracing it as with encircling arms.



NEST OF BULLOCK ORIOLE, NO. 1.

for in its construction was the strength of the bottom. This, and perhaps an inch up on the sides is thick and strong, but above the walls are thin and transparent, and scarcely more than a frame work, but strongly woven and securely fastened to the supporting branches. This type is usually placed near the end of an upward inclining branch, which may be attached to it for its whole length; sometimes at the end of a drooping branch, but in any case it derives its support almost wholly from the side. The bottom never extends down to the base of any fork, a space of an inch or more always being left, but the nest is usually built as low down in the fork as its bulk will allow, thus gaining an additional basal support; the top is generally somewhat flaring being built out to convenient twigs.

In the material used in construction the pensile nest shows the greatest variety and the most careful selection. More string and long horse hairs are used, both highly necessary, as the weight is sustained wholly from the top, and these woven through the nest and over the supporting branches give a strength to the whole

The truly pensile is the "hangbirds" nest of the picture books, and has its support wholly at the top, depending from a small fork or from two near branches, with the opening rather small and the nest below expanding into the well-known form. This type is generally the most pleasing in effect and shows more elaborate and painstaking workmanship. It is usually placed near the end of some low-drooping branch well hidden among the leaves, and is so strongly built that it may stand the wind and rains of several seasons before the final dissolution.

The semi-pensile is a very different type, seldom artistic and generally frail, rarely lasting over one season. It would almost seem as if the main object sought



NEST OF BULLOCK ORIOLE, NO. 2.



structure that is marvelous. In general the material is the same in all: dry grass, shreds of willow or inner cottonwood bark, fine weed stems, horsehair, string, etc., with a lining of soft grasses, and down from the willow or cottonwood piled in, thick and soft. Sometimes the down will be worked into the outside of the nest as well, with pleasing effect. As a rule there is not much variation between the various nests of the different types, but occasionally some rare genius goes beyond his fellows and evolves a structure beautiful and unique. Three of these extra-ordinary nests are herein described.

When first seen by me the first nest was, without exception, the most beautiful nest of this species I ever saw. It was taken from a white oak tree, quite an unusual location in this section, and was near the end of a small drooping branch about fifteen feet from the ground. The twigs to which it was attached formed a fork, and a few inches above, another small twig extended downward in the same direction. The nest was wholly suspended from these, the twigs, with some of the leaves attached for a little distance back. With these extra-long horse hairs of wild oats and a few of the oat heads inside where they nest itself, but almost the long stems being heads which stood graceful fringe all from one to three effect was striking unfortunately much stroyed a large part tograph could be sessions in inches are as side (extreme) 14; to opening, 8; depth diameter outside, 7; circumference 21.



AVERAGE NEST OF BULLOCK ORIOLE,  
AND NEST NO 3 (RIGHT).

ments are of the nest clude the fringe of ing is rather triangular in shape from the position and angles of the supporting twigs and is rather more than an inch greater from front to rear than from side to side. The back is built up into the fork and nearly to the branch itself and is six inches higher than in front.

If birds have an eye for the beautiful in their homes, as well as for utility, (and who can say that they do not?) then surely the architects of this structure were thorough artists. It would be hard to conceive of an oriole's nest more artistic or generally pleasing in effect.

The second nest stands rather in a class by itself, being neither pensile nor semipensile in form, and is the only nest of the species I ever saw that was built in that way. It is more like the nests of the other branches of the Icteridæ, and it is hard to believe it is an oriole's nest at all. It is supported almost wholly from the base, one side being built squarely over a small branch which crosses a little to one side of the middle. The other side is supported at the very top by a

being worked into it ceptions and two or it was composed whol- rather loosely woven. heads show on the were worked into the all are on the outside, worked into their out in a beautiful and around and below for inches or more. The and unusual. Very handling had de- of these before a pho- cured. The dimen follows: Depth out- depth outside (front) inside to opening 5½; diameter inside, 4; These measure- proper and do not in- oat heads. The open-

small leaf-twig. There are no other supports whatever. This was taken from a sycamore at an elevation of almost twenty feet and was near the end of a somewhat drooping branch where it was well hidden by the large leaves. This also has wild oats for its chief material, the stems being woven closely into the nest itself leaving the heads to stand out for a couple of inches all around. Inside them is grass and quite a little willow cotton at the bottom and a few horse hairs woven in. In its dimensions it is also unusual: depth, outside, 4 inches, inside 3; diameter outside, 5, inside, 3; circumference, 13. This nest is so radically different from the ordinary nest of the species that one cannot help wondering what spirit of retrogression (one might say) possessed its little builders.

The third nest is of the semi-pensile type, but shows a skill in its manufacture that places its builders as far ahead of the ordinary semi-pensile architects as are the weavers of the truly pensile type. When first seen by me at the top of a small willow sapling I took it to be a swarm of bees and regretted that my collecting outfit did not contain suitable apparatus for gathering them in, for I do not like to have the little busy bee waste its sweetness on the desert air and in hollow trees if I can very well prevent it and besides hollow trees are much better adapted to screech owls. The resemblance to a swarm was very great and I was within thirty feet of it before a female oriole flying from the nest showed me my error. It was placed between the two branches of a nearly upright fork in the very top of a small clump of willows, about twelve feet from the ground. One small branch was completely buried in the nest for nearly its whole length, the other secured to it at the top, a little above and a little below the middle and lying close against the nest all the way. The top is rather flaring, being built out to the numerous leaf-twigs, many of which with their leaves are worked in on the top and back. The material used in its construction is wholly shreds of dry grass and of the bark of weed stems, the general color effect being very dark throughout. There are a few pieces of the stems on the outside with the bark partially detached and woven in, the stems hanging loose. For scientific weaving this nest is a marvel and resembles fine crochet work more than anything. The average nest of the Bullock oriole will have bits of string and plenty of horse hair woven in to bind and strengthen it, but this has nothing of the sort. I can not find even one piece of horse hair in the whole nest, nothing but fine and apparently short shreds of grasses and weeds. Holding it before a light one can plainly see the longer foundation lines running through and the marvelous way in which it is all worked together. All the length of the nest the sides are thin and of the same delicate workmanship, the bottom is harder and thicker, but the same material is used throughout. The builders of this nest were the most wonderfully skilled workers of their species that I ever saw and were doubtless old and experienced; no novices could ever have constructed such a nest. The photograph, while showing well the remarkable shape and size fails to give a perfect idea of the fine weaving and material, that only an examination of the nest itself can do.

For comparison I have included in a photograph the nest of another pair of orioles that can fairly be called an average nest, both for size, manner of construction and materials and also attachment to the branch. The measurements of both nests are here given: depth inside, nest 3, 9 inches; average nest  $4\frac{1}{2}$  inches; depth outside, nest 3,  $9\frac{1}{2}$  inches; average nest 6 inches; diameter inside nest 3,  $3\frac{1}{2}$  inches; average nest 3 inches; diameter outside, nest 3, 4 inches; average nest,  $3\frac{1}{2}$  inches; greatest circumference, nest 3, 12 inches; average nest, 12 inches. In

both nests the top is flaring and extends out to supporting twigs for an inch or more, the measurements do not include these extensions.

These three nests show peculiarities in shape and in the materials used that would seem to indicate a fixed purpose and design on the part of their builders rather than the result of chance. The wild oats used in the first two is unusual, even in small quantities, yet these birds chose it in preference to everything else, although other materials that satisfied other orioles were in abundance. Concealment seems to have been disregarded, in the first nest especially, for the large bulky structure of wild oats would be a rather difficult thing to hide in the foliage of a white oak and there seemed to be very little if any attempt at it. In the second nest the white bark of the sycamore and large lighter colored leaves made it more easy. In the third nest the fact that what were undoubtedly the same birds built a new nest a few rods away when this was taken, using the same sort of material and building a nest of the same shape and nearly the same size, and of the same fine weaving would show an individual preference that was as decided as it was remarkable. This second nest was not disturbed and the birds raised their brood in peace. I shall watch the locality with interest this season and if the same birds return I am sure I shall know them by their handiwork.

### The Phainopepla.

BY M. FRENCH GILMAN.

THIS bird always possessed a fascination for me, though as a small boy, my interest and admiration were mixed with some awe and respect. His easy graceful flight, dignified bearing and hearse-like plumage and colors placed him above the common herd and it were nearly sacrilege to throw rocks at him. This immunity did not extend to the nest and eggs could I but find them. For a long time I sought in vain and began to think they were like the fabled birds of paradise, or like "Topsy." But finally a nest of young birds was found in July and the ice was broken.

There is a dignity and an air of mystery about the bird that appeals to one. His silky, jet plumage, graceful crest and flaming red eyes form a striking combination, and the revelation, as he flies, of the snow patches on his wings is rather startling. As a musician he does not excel, merely repeating at intervals a flute-like note, or when another bird interferes with him, uttering a rasping reproach.

The phainopepla makes his appearance in this vicinity about the 15th of May and remains until about October though stragglers may be seen along in November. I once saw one during a snow storm the middle of January, and he was still dignified though bedraggled. Many of them spend the winter in the mesquite thickets of the Salton sink and Conchilla valley—in and around Indio, Walters, Martinez and Toros. Here they feed on the pinkish berries of the desert mistletoe which infests so many of the mesquite trees. A few of the birds remain all winter at Palm Springs also, feeding on mistletoe berries and the pepper berries of which they seem very fond. A pepper tree with several of the phainopeplas clinging to

its long graceful branches, eating the pink berries, forms a perfect picture, the remembrance of which lingers.

In watching the birds during the breeding season I observed that many of them took no interest in domestic affairs, but put in much of their time consorting with such mixed company as house finches, western tanagers, and grosbeaks, in fig and cherry orchards where some of them met violent deaths. These loafers nearly all looked like immature birds, being less glossy and dignified, and I have since discovered they were nestlings of the season hatched in early spring in the Conchilla valley and at Palm Springs, and perhaps as far as the lower Colorado river country. This was surprising to me as the birds nest so late in the San Gorgonio pass, Warner's ranch and other similar points. In my notes I find the earliest date for a nest to be Banning, June 11, 1893. Fresh eggs at other dates noted were: Warner's ranch, June 12, 1901, Banning, June 23, 25, 27, 28, and July 4, 1893. Young birds can be found all through July, and in only two instances were eggs found prior to June 23. For a month after they arrive or until about June 15, they seem to have nothing to do but amuse themselves and look pretty.

From my desert notes I take the following data: Palm Springs, March 24, 1897, three new nests and a nest of young just ready to "fly the coop;" March 20, 1899, three new nests and a nest of young a few days from the egg; March 6, 1900, nest with two fresh eggs. At Toros I made notes as follows: March 19, 1901, a set of two eggs partly incubated and a nest of half grown young. From this data it would seem that most of the young are hatched in March and April and that in some instances nest building must begin in the latter part of February. Possibly some of the birds rear two broods a year, but from the fact that some adult birds fail to pair and nest in this vicinity, I am inclined to think but one brood is raised. Probably those hatched in March on the desert return there to nest the following March; while those hatched in the San Gorgonio pass, in June and July, nest there the following summer.

The nest is placed in a sycamore tree if one is available, but nests may be found in oak, cottonwood, willow, or mesquite trees. Two eggs is the usual set, though three are sometimes found. I have a set of three found at Warner's ranch and have record of three in set twice at Banning, one found by Nathan Hargrave and one by myself. The nest is saddled on a branch, and in shape and composition very much resembles that of the wood pewee, though larger in size. The male bird does much of the incubating, being seen on the nest more than half the time and exhibiting more solicitude for the home than does his mate.

### The Significance of Trinomials.

BY WITMER STONE.

THE following comments were originally prepared as a communication at the Twentieth Congress of the A. O. U. They are presented here at the request of the editor of THE CONDOR, but have been somewhat modified in the interests of brevity and clearness.

Nomenclature is not a subject of much popular interest, but since the varied faunal conditions of California bring it constantly to the attention of the systematic zoologists of the State, the present publication may be warranted.

The writer is speaking solely for himself, and no matter whether his views be ultimately endorsed or condemned by the A. O. U. Committee, he wishes to be understood as always advocating adherence to the Code and Check-list of the A. O. U. as the only way to secure uniformity—the main object for which we strive. He is also well aware much the same problems as here presented have already been discussed by Dr. Merriam, Dr. Allen and others, so that no originality is claimed, but merely an expression of opinion.

The use of trinomials, as established by the A. O. U. Code and adopted by most writers on vertebrates, is generally understood to be the designation of the geographic variants of a wide ranging form, which merge into one another where their ranges join—i. e., incipient species, produced by peculiar environments, but which are not yet entirely isolated from one another. The forms so designated are called subspecies.

As a convenient method of deciding whether a certain race or form should be regarded as a species or subspecies, actual intergradation between contiguous forms was adopted by the A. O. U. Code as the criterion.

When we come to name resident birds of coastwise islands which are but slightly differentiated from the mainland stock we at once confront a problem. Intergradation in the sense of interbreeding is impossible, consequently some writers maintain that all island forms must be regarded as *species* (binomial). But intergradation in the sense of overlapping of characters exists in many cases, and on this ground others term them *subspecies* (trinomial) and in practice a form is judged to be a species or subspecies by the *degree of difference* exhibited between it and its nearest geographic relative. This latter would seem to be the more logical course, since by the former plan we might just as well separate the song sparrows for instance of San Clemente and San Miguel Islands since they are geographically separated into two races, though as yet we cannot detect any tangible difference between them!

Extending the practice of recognizing overlapping of characters as intergradation, we find the geographically isolated though closely allied Florida burrowing owl listed as a subspecies of the bird of the plains, and other similar cases culminating with Mr. Nelson's recently described "subspecies" of the Cuban cliff swallow from western Mexico! This practice is severely criticised by some, but if we regard these forms as species solely on account of geographic isolation, what are we going to do with the martin of Southern Mexico which Mr. Nelson states is indistinguishable from the Cuban martin. Surely we cannot separate it purely on geographic grounds and if we do not separate it we are calling by the same name two forms which have probably developed independently, and thus losing sight in our nomenclature of a fact of evolution, the indication of which facts is, according to the strict adherents of the actual intergradation principle, the main object of trinomial nomenclature. The question naturally occurs can we indicate in our nomenclature all these facts of evolution without seriously impairing the utility of our names as names?

The foregoing cases are those in which *actual* intergradation is either impossible or doubtful. Let us now consider some where it is admittedly a fact.

Mr. Ridgway has shown that all of our continental song sparrows pass imperceptibly one into the other where their ranges touch, and as a result we have the little speckled-breasted bird of the California salt-marshes listed as a subspecies of the big gray bird of Alaska, more than twice its size, and which any novice would regard as a perfectly distinct kind of bird.

In the quail also Mr. Nelson has shown intergradation between a whole chain of contiguous races reaching from the eastern United States to southern Mexico and therefore we must link together in a trinomial name our white-throated, bar-breasted, bobwhite (*Colinus virginianus*) with a chestnut-bellied, black-throated, bird bearing no resemblance to it except in generic characters. And yet a race separated by some miles of country and not showing any actual intergradation with its nearest geographic ally, will be designated as a species with a binomial name, even though it be much more closely related to either of the above extremes than they are to each other! This practice to my mind loses sight of the primary object of nomenclature which I take to be the designation of a distinguishable form in nature by a name which, when we see or hear it, will recall that form to mind. Anyone seeing a trinomial name today has no idea whether the form denoted is a slight variation of the stock indicated by the specific name or something totally different perhaps occupying a region hundreds of miles distant, the intervening country being occupied by other forms between which by mere chance the thread of evolutionary development is not yet quite severed.

The result of this use of trinomials will tend to the complete abandonment of this useful form of name. In fact some writers on mammals have already practically lapsed into a pure binomial nomenclature. It seems to me that this tendency is very much to be regretted. A trinomial properly used means just twice as much as a binomial, and with the present practice of naming every slightly differentiated form, a purely binomial system will soon mean nothing except to the specialist on each group—the mind cannot place such a host of names. The trinomial on the other hand properly used gives at once, in the specific names, a clue to the general character of the form referred to.

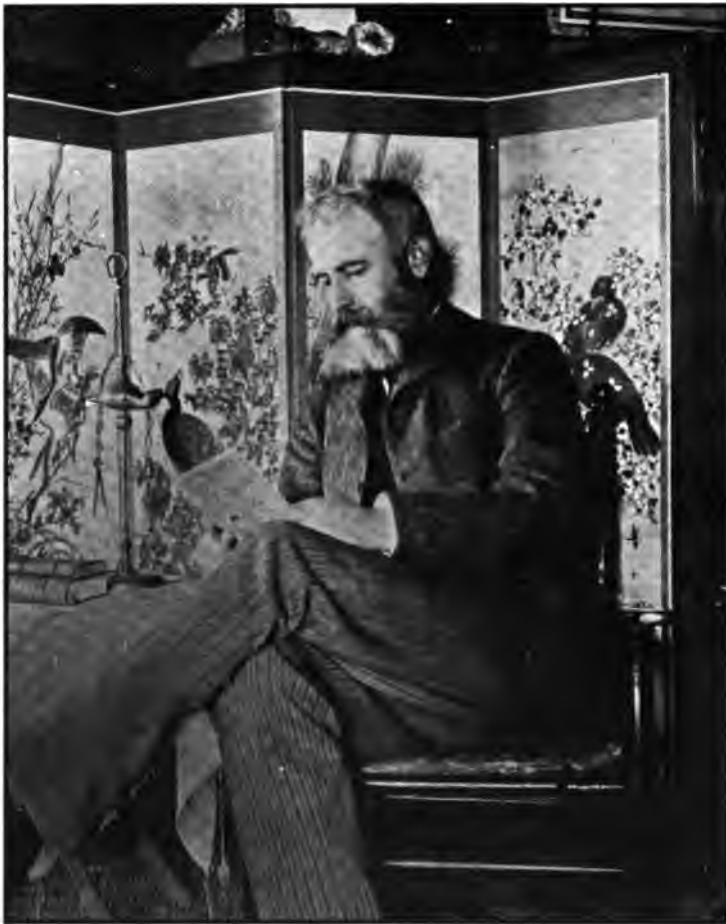
By continuing the practice of naming island and isolated forms by the *degree of difference* principle as is now done in the A. O. U. Checklist, and by extending this practice to the breaking-up of such widely divergent series as the song sparrows and quail (which are comparatively few); I think that the valuable system of trinomials can be preserved. That the series just referred to must be broken *arbitrarily*, I admit, and that they *can* be broken arbitrarily by such a body as the A. O. U. Committee and still meet with general satisfaction there is, I think, no doubt. Genera have been so divided in numerous instances and the conditions prevailing in both cases are the same, i. e., current personal opinion.

The segregation of geographic races and the tracing of evolutionary development constitute one of the most valuable and instructive phases of modern systematic work, but we should realize that all the facts so discovered cannot be embodied in our nomenclature and that if we give up the effort to so embody them, we in no sense mean to belittle them.

To my mind we should aim to keep a name as nearly as possible to its original province, and to remember that "nomenclature is a means not an end of zoological science."

The Author of "Birds of the Cape Region of Lower California."

**M**R. Brewster's recent noteworthy work on the "Birds of the Cape Region of Lower California" appeared just thirty years after his first paper, "Birds New to Massachusetts," in the *American Naturalist* for 1872. Since then a long and enviable list of papers has marked his active ornithological career—a list far too extensive to enumerate in this connection. Tho his systematic articles are many, it is safe to say that Mr. Brewster is best known by his



MR. WILLIAM BREWSTER.  
(Taken February 5, 1895.)

faunal and life-history work. As a portrayal of bird life and bird ways he is without a peer.

Altho it is in New England that he now loves to 'ornithologize,' yet thru numerous field collectors his interests have reached to the farthest shores of the continent, and his many articles on western birds entitle him to a place among our most active workers.

**A List of Water Birds of Lake Valley, Central Sierra Nevada Mountains, California.**

BY MILTON S. RAY.

WHILE the land birds of this region have been fully treated by Chester Barlow in *THE CONDOR* (Vol. III, No 6) and by Wilfred Osgood and other writers in various magazines, little or nothing has been written regarding the water birds. I have spent two seasons in the valley, from June 4 to June 20, 1901, and from June 16 to July 3, 1902. My brother, William R. Ray, has accompanied me and in 1902 Olof Heinemann joined us.

The principal resort of the water birds is the marsh extending along the shore of Lake Tahoe between Rowlands and Tallac for about three miles and from one to three miles inland. They are also found sparingly, however, on Lake Tahoe and other adjacent lakes, and in the various meadows and along the numerous streams of Lake Valley. Most collectors have been prevented from working the marsh at Rowlands thoroughly owing to deep water, impenetrable tule-thickets and impassable patches of pond lilies. While inaccessible to a row-boat, we overcame these difficulties with a light portable canvas canoe which we used both years. This enabled us to go over the shallowest water or lily-beds with ease and thru the thick tules with some little difficulty.

Thanks are due Mr. Leverett M. Loomis for identifying a number of skins taken. Starred (\*) species were collected.

**Colymbus californicus.** American Eared Grebe.\* The grebe is a very rare bird about Lake Tahoe. None were observed in 1901, although many days were spent in the marsh at Rowlands. On June 29, 1902, a nest was found in the above marsh in about six feet of water among a sparse patch of tules. It was a floating mass of decayed vegetation and fastened to the reeds, and contained four well stained and almost fresh eggs.

**Larus californicus.** California Gull. This gull in all states of plumage is abundant on the lake about Rowlands but does not breed. On every visit immense flocks would lazily raise from the sand bar at the mouth of the river as we entered.

**Sterna forsteri.** Forster Tern.\* Very common about Rowlands marsh where it nests in colonies of a dozen pairs or more. When the nesting grounds were approached the terns would fly up and hover about us, uttering their discordant cries, and some would dart uncomfortably close to our heads. The nests were built in various situations. The majority were built up of dry tules where the water is about five feet deep. When freshly built of green tules the nest formed a pretty picture. They were placed among tall thick tules or marsh grass and pond-lilies at their edge. Great difference existed in the nests, some being elaborate structures, while others were scantily made and placed on soggy masses of dead tules or floating logs. Numerous eggs were observed floating in the water about the nesting grounds and in a large number of sets taken the eggs were added. A little before the first of June these terns start nest building, and fresh and partly incubated eggs were found all through the month. Even on my latest trip to the marsh, June 29, 1902, I did not observe any young of *forsteri*. The nests contained either one, two or three eggs and in about one hundred nests examined in 1901 and 1902, only one contained more, namely, five eggs. While the style of marking varies greatly, the ground color of brownish-drab and the blotches of brown, umber and lilac remain about the same. A single exception was a set



of three eggs, in which the ground color is pale green. An abundant fish in the marsh called "chubs" is the principal food of these birds, and they may be seen all over the marsh restlessly flying back and forth or hovering and dropping with a sudden splash after their prey.

**Hydrochelidon surinamensis.** Black Tern. This tern is even commoner than the preceding species. Occasionally substantial nests of tules in deep water like those of *forsteri* were found, but nearly all were scantily or carelessly made of fine tules and marsh grass and placed on floating driftwood in a foot or so of water. Like *forsteri* this bird usually lays one, two, or three eggs, but a single set of four were found. It nests a little earlier than Foster tern, small young being rather common at the end of June. The birds breed in colonies, from ten to twenty nests



NEST OF THE MALLARD.

PHOTO BY O. HEINEMANN.

being found together. A single specimen of a tern with a white breast not larger than *surinamensis* was seen, but we were unsuccessful in our attempts to secure it.

**Pelecanus erythrorhynchos.** American White Pelican.\* Abundant about Rowlands marsh but does not breed. I also noticed large flocks about the numerous mountain lakes in Desolation Valley (altitude about 8000 feet). By the protuberance on the bill the males can be distinguished for quite a distance.

**Merganser serrator.** Red-breasted Merganser. Recorded as a winter visitant at Lake Tahoe in Grinnell's "Check-list of California Birds."

**Anas boschas.** Mallard. By far the commonest duck about the marsh. Also numerous along the various streams and marshy meadows. The majority breed in May as several dead ducklings were seen and numerous nests were found, in

clumps of willows or among the wiry grass on sand-spits, profusely lined with down, containing egg shells.

*Querquedula cyanoptera*. Cinnamon Teal.\* The teal is scarce. I found a single nest on June 19, 1902, containing four nearly fresh eggs. It was simply a hollow without any lining, on high ground in the marsh among tall grass.

*Aix sponsa*. Wood Duck. On nearly every visit to Rowlands I have noticed a single individual and young of this beautiful duck off the mouth of the river.

*Aythya collaris*. Ring-neck Duck. Recorded from Lake Tahoe in mid-winter in Check-list of California Birds. The above list of ducks could probably be trebled by observations in fall, winter, and spring.

*Botaurus lentiginosus*. American Bittern. A single specimen of this bird was seen on June 29, 1902, when it flew up a few feet from the canoe, in the tall grass where it had been feeding, but on every trip to the marsh or the vicinity the peculiar booming noise was heard.

*Ardea herodias*. Great Blue Heron. Noticed occasionally about Rowlands in June 1901 and 1902.

*Fulica americana*. American Coot. During June, 1901, this bird was common all over the reedy parts of the marsh nesting both in tall thick tules and among sparse reeds in almost open water where the nest could be seen for quite a distance. Some nesting records in 1901 are as follows: June 8, 9 eggs, incubation advanced; 7 eggs, incubation, one half; June 12, 8 eggs incubation begun, 7 eggs incubation advanced; one nest with young just emerging from the shell. Strange to say I did not see one of the birds in 1902.

*Steganopus tricolor*. Wilson Phalarope.\* Rather common both about Rowlands and the marshy meadows near Bijou where two pairs had nests about the middle of June, 1902. They could not be located however, even with the aid of a field glass owing to the character of the country and the marvelous hearing and sight these birds possess. On June 14, 1901, I shot a female of this species for identification, and it was pitiful to see how her mate would not forsake the spot but continued circling around uttering its mournful and almost human cry. These birds were seen in flocks of half a dozen or more and also single pairs during June, and I am almost positive I observed a pair with young early in June, 1901, thus showing that the breeding season extends from May to July.

*Actitis macularia*. Spotted Sandpiper. Common about Rowlands as well as along the lake shore, various streams in the valley and numerous meadows. A nest, June 9, 1901, at Rowlands, among wiry marsh grass contained four fresh eggs, and one June 17, 1901, in the same location contained a like complement, also fresh, and curiously enough but half a foot away was a nest of the Killdeer with three eggs. One nest June 26, 1902, was found near Bijou by watching the birds from a distance with a field glass. It contained four eggs too far advanced in incubation to be of value.

*Ægialitis vocifera*. Killdeer. The killdeer frequents the same localities as *Actitis macularia* and is very abundant. Owing to the perception of these birds, however, the nests are not easily found unless considerable time is spent. A nest, a hollow scooped in the bare shingle on the lake shore at Rowlands on June 11, 1901, contained three fresh eggs, and one in a similar situation on June 22, 1902, contained the same number in the same condition.

### The Summer Birds of Washoe Lake, Nevada.

BY FORREST S. HANFORD.

**W**ASHOE Lake, Washoe Co., Nevada, is a typical Nevadan lake, with an area of eighteen square miles and an altitude of 5,045 feet above sea level. Its shores are barren of anything approaching trees, except for a few clumps of willows here and there. Extending along the eastern shore lie a chain of sand dunes rising to a height of thirty feet, and cut through in many places by numerous 'wash-outs.'

Here in the cliffs the bank swallows make their homes, and I have found many relics and arrowheads of the Washoe tribe of Indians who once made these small, wind-sheltered gullies their home. About half a mile back of these sand hills is the Washoe range of mountains, covered only with sage brush, the first of the desert ranges.

Passing around to the west side of the lake we find a country entirely different; here lies the fertile Washoe valley and two miles distant rise the Sierra Nevada, its pine forests and snow-capped peaks making a strong contrast to the desert country to the east. The tule fields are at the north and extend four miles, ending in Little Washoe Lake. The following short notes were taken during the months of May and June of the last two years.

*Æchmophorus occidentalis*. Western Grebe. About ten noted in May, 1900. I have tried shooting at them with a rifle but always with the result of seeing them disappear under the water at the flash of the gun.

*Colymbus nigricollis californicus*. American Eared Grebe. A set of nine eggs collected in June constitutes the first record of this grebe breeding at the lake.

*Larus californicus*. California Gull. One seen on shore with white pelicans.

*Hydrochelidon nigra surinamensis*. Black Tern. Not uncommon. Several pairs noted flying over tules where they probably breed.

*Pelecanus erythrorhynchos*. American White Pelican. About 50 pelicans were observed at the lake last year and the number had increased to 100 this year. Three eggs were found a foot under water in June, but no nests have been found for a number of years.

*Anas boschas*. Mallard. Breeds abundantly at the lake in May.

*Chaulelasmus strepera*. Galwall. Not common. Only a few pairs noted this year.

*Nettion carolinensis*. Green-winged Teal.

*Querquedula discors*. Blue-winged Teal.

*Querquedula cyanoptera*. Cinnamon Teal. All three of the above ducks were common breeders at the lake.

*Dafila acuta*. Pintail. Mr. J. Steinmetz tells me that the pintail has been observed at the lake several times.

*Histrionicus histrionicus*. Harlequin Duck. A male was taken at Frankstown near the lake and identified by Mr. Steinmetz.

*Erismatura jamaicensis*. Ruddy Duck. Noted quite a number of times in open lanes of water in tule fields, but appeared quite shy.

*Branta canadensis*. Canada Goose. A number of nests of this goose have been found at the lake in past years. In May 1900 a nest was discovered near the shore, containing the shells of eggs and was supposed to belong to this species.

*Branta nigricans*. Black Brant. Accidental. Early in May a pair was observed near shore of lake.

***Botaurus lentiginosis*.** American Bittern. A single bittern was seen at the lake this year.

***Nycticorax nycticorax naevius*.** Black-crowned Night Heron. A colony of these herons was discovered breeding in the middle of the tule field in May 1900. About 200 nests were counted and by the first of June they all contained young or incubated eggs. Only twenty herons were seen at the lake this year.

***Rallus virginianus*.** Virginia Rail. Noted in marshy meadows on west side of lake.

***Fulica americana*.** American Coot. Very common in tule fields.

***Steganopus tricolor*.** Wilson Phalarope. Not uncommon on west side of lake. Found breeding close to shore.

***Recurvirostra americana*.** American Avocet. A few pairs seen on west side of lake; probably breeding.

***Himantopus mexicanus*.** Black-necked Stilt. Noted along west shore of lake in May and June.

***Gallinago delicata*.** Wilson Snipe. Not uncommon in marshy fields on west side of lake.

***Actitis macularia*.** Spotted Sandpiper. Common breeder along shores of lake.

***Egialitis vocifera*.** Killdeer. Abundant at lake.

***Circus hudsonius*.** Marsh Hawk. A pair of these hawks observed at the lake in May 1900.

***Archibuteo lagopus santi-johannis*.** American Roughleg.

***Falco sparverius deserticolus*.** Desert Sparrow Hawk. These two hawks have been noted hunting through tule fields in June. The latter nests high up in the Sierras.

***Bubo virginianus pallescens*.** Western Horned Owl. Noted in tule fields in June.

***Speotyto cunicularia hypogaea*.** Burrowing Owl. One seen on fence post near lake in May.

***Chordeiles virginianus henryi*.** Western Nighthawk. Noted flying over tule fields.

***Xanthocephalus xanthocephalus*.** Yellow-headed Blackbird.

***Agelaius phoeniceus*.** Red-winged Blackbird. These two blackbirds are common through the tules.

***Sturnella magna neglecta*.** Western Meadowlark. Abundant in grassy meadows near lake.

***Scolecophagus cyanocephalus*.** Brewer Blackbird. Very common around lake.

***Ammodramus sandwichensis alaudinus*.** Western Savana Sparrow. Quite common on west side of lake, breeding close to shore.

***Chondestes grammacus strigatus*.** Western Lark Sparrow. Not uncommon on west side of lake.

***Spizella breweri*.** Brewer Sparrow. Very common in sage brush on east side of lake.

***Amphispiza belli nevadensis*.** Sage Sparrow. A characteristic bird of the sage brush on east side.

***Melospiza melodia montana*.** Mountain Song Sparrow. Noted with young in tules near the last of June.

***Pipilo maculatus megalonyx*.** Spurred Towhee. Abundant in sage brush on east side of lake.

***Oreospiza cholura*.** Green-tailed Towhee. Several noted in a patch of sage brush on south shore.

***Petrochelidon lunifrons*.** Cliff Swallow.

***Hirundo erythrogaster*.** Barn Swallow.

*Clivicola riparia*. Bank Swallow. All three of the above swallows found breeding near lake.

*Geothlypis trichas occidentalis*. Western Yellowthroat. They are quite common in the tules.

*Oroscoptes montanus*. Sage Thrasher. Found quite commonly in sage brush on east side.

*Cistothorus palustris plesius*. Western Marsh Wren. A very busy little wren in the tules.

### Status of the Bicolored Blackbird in Southern California.

BY FRANK S. DAGGETT.

IT is safe to say that during the past ten years hundreds of eggs of the bi-colored blackbird (*Agelaius gubernator*) have been sent from Southern California, and all our collections contained skins of what was supposed to represent that bird.

When the interest in ornithology was first started in California and which culminated in the formation of the Cooper Ornithological Club in 1893, the principal authorities warranted the assumption that *gubernator* occurred in Southern California. Coues' Key gave the distribution as "Pacific Coast U. S. and British Columbia" while the A. O. U. Check-List states, "Pacific Coast district from Western Washington, south to Lower California," etc. With this for a basis we all looked for *gubernator*, and it was found, as we supposed, associated with *Agelaius phoeniceus* of those days. The bird so selected was an immature-looking male, with buff lesser wing coverts, and black middle coverts, answering to the written descriptions of *gubernator*. There is more or less uncertainty as to the status of all our blackbirds, and in 1896 Mr. Grinnell made up a lot of adults and immatures, for transmission to Washington for identification, among them some belonging to the writer. Upon their return we found, among the immatures, several marked *gubernator*. This was long before Mr. Ridgway's revision of the blackbirds, but it confirmed our earlier decision and *gubernator* received a place in the List of Birds of the Pacific Slope of Los Angeles County with the following observation by Mr. Grinnell: "Several specimens of this form have been taken at Bixby and El Monte, and it may breed in this County, as it does commonly to the northward; but I have no reliable data, altho many eggs purporting to be of this bird have been sent from the County."

About a year ago Mr. Grinnell, in order to settle the question, sent me a pair of *gubernator*, in breeding plumage, collected by him in a locality of well known occurrence. The comparison at once threw out the birds which we had known as *gubernator*, and further investigation convinces me that they are what is now known as *A. p. neutralis* Ridgway.

I have examined all the available collections in Southern California, with the same results, and I can find no one here who can produce actual specimens of *gubernator* taken in the southern counties of California.

Unless some one produces specimens, it is safe to say that the bird does not occur here. Certainly the eggs sent out so freely from this part of the state, in years gone by, as *gubernator*, can safely be put down as of Mr. Ridgway's recently described *A. p. neutralis*, for most of them were taken in well known colonies, where none but *neutralis* are found today.

## CORRESPONDENCE

## On Certain 'Modern' Tendencies

EDITOR OF THE CONDOR:

In examining some zoological works published in the early part of the 19th century I have recently noticed several discourses which may be of interest to the readers of THE CONDOR. The numerous protests against the fine discrimination of species and subspecies which have been recently made in various zoological and particularly in ornithological journals are chiefly addressed to those who indulge in what are termed 'modern' tendencies. It seems, however, that neither the protests nor the supposed tendencies are quite sufficiently modern to share the title with storage electricity and wireless telegraphy. As early as 1820, Dewitt Clinton (Letters on the Natural History and Internal Resources of the State of New York, pp. 156-157) published a long dissertation upon this subject. The following short extract indicates the 'deplorable' state of affairs then existing.

"This system [the Linnæan], when it came out of the hands of its great architect was recommended by its simplicity, and by its tendency to facilitate the acquisition of knowledge. In the progress of time it has become corrupted by the interpolations and sophistications of inferior workmen who have destroyed its beauty, deranged its symmetry, and undermined its strength. The multiplication of terms, the augmentation of synonymes, the creation of new genera, and the fabrication of new species, have overloaded the science with an Egyptian burden of terminology. Philosophy has been transferred from things to words, and the inventor of a new term, of specific or generic difference where none exists, has been absurdly considered as entitled to the honors of an important discovery. A new race of naturalists have started up, who confine their attention solely to verbal description, and who entirely overlook the habitudes and manners of animals, and the uses and characters of other organic beings, and of inorganic matter."

A few years later James E. Dekay, author of the well-known zoology of New York wrote as follows: <sup>a</sup> "New nominal species perplex the student, increase the labours of the critical naturalist, and render the study of natural history tedious and difficult. If it was generally understood that it is more meritorious to extinguish a single nominal species than to establish a dozen new ones, it would effectually check the *present mania* for making new species often on slight foundations. This also leads to an overweening anxiety to secure priority; and hence descriptions are liable to be drawn up in a crude and hasty manner, without reference to the co-ordinate characters."

In 1831, John Godman (Am. Nat. Hist. vol. I, pp. XV-XVI) presented the same ideas as follows: "Beginners of the study of natural history are generally liable to form erroneous conclusions, among which none is more common and prejudicial than that of mistaking the system of classification for the subjects classed, or in other words, the arrangement of the names for the things themselves, nomenclature for natural history. \* \* \* \* The mistake above pointed out is continually urging many who would be esteemed naturalists to the formation of new genera and species, founded on trivial, accidental, or imperfectly noted differences between creatures which, to all rational observers, appear the same. This retards science, and misleads individuals as to the character and objects of natural history, which, judged by the conduct of some who are regarded as authorities, would appear to be the science of magnifying trifles and bewildering the understanding. In natural history, as in other departments of human knowledge, none but sciolists are pedants; such persons struggle to impart to their implements the dignity and importance that should belong to the work alone, and, 'in self adoring pride securely mailed,' seek but to glorify themselves, considering the interests of science as nothing when weighed against the gratification of their own vanity."

The application of the foregoing is not far to seek and it would be superfluous to state it at length. Surely the systematists of today prefer the heritage they possess rather than that which would have been theirs if these ultra-conservative counsels had been followed to the letter.

WILFRED H. OSGOOD.

Washington, D. C.

## A Protest

EDITOR OF THE CONDOR:

Kindly allow me to make a most emphatic protest against the useless and wasteful record of egg collecting in your journal, vol. IV, pp. 128-131, in a paper entitled "The Holbœll Grebe

<sup>a</sup> Address to The New York Lyceum, p. 76.

in Montana." The writer of the paper in question is an ornithologist of recognized ability who should stand for the conservation of bird life, but by his own story he worked for two weeks systematically and energetically, and the result was a small amount of the life history of a species that is rarely found breeding within the limits of the United States, and the collecting of probably every egg that was laid by the small colony of five pairs of grebes that had selected Swan Lake for a home. Twenty-eight eggs taken, some of them almost on the point of hatching, and for what,—that they might be measured to see if there was a fraction of an inch difference in the length or breadth of the empty shell, or to note if there was a slight variation in the shade of ground color. Could this not have been done without the sacrifice of twenty-eight young birds, and the consequent distress of the parents?

In my efforts for better bird protection I am often confronted with the statement that much useless and unnecessary collecting is done in the name of science. No one can have a higher appreciation of real scientific work than I accord to it, but the taking of every egg, of a rare breeder, in a small colony, is in no sense scientific, but on the other hand, it is wasteful and reprehensible. One typical set taken in 1902 would have been ample to establish the fact that the Holboell grebe breeds in Montana. It would have been much more scientific to have spent the two weeks in obtaining some insight into the life history of this species; i. e., method of nest building, care of young, food habits, etc. These would have been valuable facts that would interest every other bird student in the country. The twenty-eight empty shells now represent only a devastated bird colony and a story of cruel wrong.

Very truly yours,

WM. DUTCHER.

New York, Jan. 5, 1903.

### An Answer

#### EDITOR OF THE CONDOR:

The limit of temperate collecting has ever been a mooted question, and like many other phases of ornithology, it is likely that the subject will always be open for discussion. As my position on this question has been criticized, I shall try to define my ideas on the ethics of collecting, and to explain the circumstances regarding the particular instance in which I am brought to task.

In a collection of natural history specimens, open to examination and usable by competent persons, the material will conserve to the pleasure and gratification of more people than it will in its native condition of life and surroundings. To support this statement, I bring forward the note in the issue of *Science* for Jan. 23, 1903, page 159, saying that seven hundred thousand people had visited the New York Zoological Park last year, and that the aquarium is visited daily by fully five thousand persons. True, the Park contains living animals, but the principle holds true in collections of whatever nature. For one person who can get out into contact with nature, there are hundreds who must be content with seeing things in cabinets and collections. In the ordinary conditions of life, the number of people who come into actual touch with nature is few indeed; a short walk on Sunday afternoon, a glimpse of some bird by the roadside, or a peep into a nest in some dooryard, is all that such people get out of the vast wealth of environment. The majority of people are pleased with collections that bring the wildwood material to them, for then they see things that otherwise would never come under their observation. Say what we please, there is a place, and a very large place, for natural history collections, even of skins and eggs of birds, as a means of gratification for this large class of persons whom I have mentioned.

It is the mission of lower animal life to minister to the gratification of the higher. This law of nature is annunciated in the Great Book, and has ever been the basis of man's dealings with the inferior creatures. It is my creed that if a set of eggs can minister to the pleasure of any number of observers, there is no question of the collector's right; furthermore, if seven sets of eggs of any one species can serve a purpose in bringing other sets, difficult of access, into one's cabinet by way of legitimate exchange, again the collector's right is beyond moral question.

The purpose of bird protection, as I understand it, is the conservation of bird life for the end I have mentioned, the pleasure and gratification of those who can come into contact with nature in her wildwood home. Of course, there are economical and other arguments for bird protection, but beneath them all lie the idea that the birds are living creatures, having many faculties allied to the human, and that all life is sacred. But let us not sacrifice sense to sentiment, for all lower life is but a part of the great domain of environment, which is to react on the human mind and soul, and develop all our noblest faculties.

If the foregoing be true, the great test of the moral right of the collector is the proper use

of his material. If a systematist can take a series of skins, and use them to the development of an instinct or faculty which is divinely given, who has a right to question the morality of the action? If in my collecting I find a place for seven sets of eggs of the Holboell grebe, who shall say that my work was wasteful and reprehensible, provided the material is usable? What constitutes wasteful collecting? Clearly, the taking of specimens that are unavailable, not usable, or unnecessary to the advancement of human pleasure or knowledge. Let us see whether the taking of the seven sets of grebe's eggs was really wasteful.

The collecting criticized was done under the direction of the University of Montana Biological Station. It is the desire of the director of that work to build up a museum for the University that will be a credit to such an institution; in other words, to form such collections of biological material as will serve the best purposes of collections at an educational center. During the past three summers my time has been given gratuitously to this end. While I have been left largely to my own plans of work, and therefore am ready to bear all censure for my actions, it has been the wish of the director that I collect largely, obtaining even more than duplicates of skins and sets, that the museum might have exchange material with which to increase its small collections. In this way about four hundred skins, and possibly seventy-five sets of eggs have been added to the museum. These eggs are the only ones in the museum.

Now seven sets of eggs of this grebe, nesting in limited numbers in the state, will give the University five or six sets to exchange. That the exchange can be made, is shown by the fact that applications have already been made to me for all the eggs, which are still in my hands and will be disposed of to the best interests of the University museum. Two sets at least should be in the University collection. The remaining sets represent value to the museum, will fall into the hands of appreciative collectors, will enhance the value of other collections, and will consequently serve the purpose for which all collections should be made and for which lower animal life was created.

Why take all the sets of eggs of this grebe that were to be obtained on this occasion? Why not take one typical set, as my friend suggests, and leave the remainder to the course of nature? Because of the very reason he mentions, its rarity in nesting within our borders. It is doubtful that I shall ever again have opportunity of taking eggs of this species, should it be necessary; and when opportunity presents itself but once in a life-time, is the collector reprehensible for taking seven sets of eggs of a rare breeder? Is he any more reprehensible than if he should take a set each year for seven years, should the opportunity successively present itself?

Furthermore, anyone who is familiar with the habits of the swamp-breeding birds knows the uncertainty of finding the birds in the same locality in succeeding seasons. Those who have visited the extensive Dakota marshes in successive seasons testify to the fact that where hundreds of the birds were breeding one year, not a bird could be found the next. Now when a colony of grebes is found, and there is need of taking the products of the colony, the collector would be very unwise to neglect the offered opportunity, for it is not likely to be repeated another season.

This grebe colony was found on a lonely lake, almost inaccessible to ordinary observers. It is more than likely that the bird life of the region will only serve the purpose of the enthusiastic collector and hunter, at least for years to come. The eggs of the birds there breeding are far beyond the reach of all except the few; why should not one season's product be brought and placed in collections where it will best serve the purpose of human study and observation?

There is a great deal of sentiment regarding the destruction of life by the egg-collector (scientific, of course). Much of this talk is mere bosh. It does not seem difficult to show that the taking of eggs as it is done by the real ornithologist has very little effect on the decrease of bird life. In fact, I am inclined to believe that the taking of the twenty-eight eggs in this grebe colony will have very little effect upon the aggregate bird life of the region. Two second sets were taken, and it is unlikely that the owners of these eggs would nest again. The others were first sets, and it is probable that the owners would nest immediately, as conditions there remained unchanged when I left on the 20th of June. My observations elsewhere show that grebes are not loath to nesting late into July. If the birds had not been molested, each pair would likely have reared its brood. What difference can it make in the end whether the brood comes from a first or a second set? Candidly, I fail to see in this collecting the sacrifice of twenty-eight young birds, nor can I admit that the twenty-eight shells represent only a devastated bird colony and a story of cruel wrong.

We are human, and are therefore liable to err. If I have erred on the side of intemperate collecting, I am ready to acknowledge my fault, and I shall ever thank my friend for calling attention to my error. If the foregoing explanation is not satisfactory, let me offer in further extenuation the plea of our master in ornithology, Dr. Elliott Coues, that of "worthiness of motive," and let the fault be covered by the broad mantle of charity.

Respectfully,

P. M. SILLOWAY.

Lewiston, Montana, Feb. 2, 1903.



## THE CONDOR

An Illustrated Magazine of Western  
Ornithology

Published Bi-monthly by the Cooper Ornithologi-  
cal Club of California

WALTER K. FISHER, Editor, Palo Alto  
JOSEPH GRINNELL, Business Manager and  
Assistant Editor, Palo Alto  
FRANK S. DAGGETT, Associate Editor

Palo Alto, California: Published March 16, 1903

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### EDITORIALS

The time for the Tenth Anniversary Meeting is rapidly approaching. Every member should make a serious attempt to be present, for it is likely no opportunity of a similar nature will again present itself till our Twentieth Anniversary—and that is too uncertain to be counted on!

Such a meeting as we hope for cannot fail to have a very wholesome influence, both upon the members, and upon the future work of the club. We are so scattered that it is only a comparatively few who enjoy the frequent meetings. Those who live at a distance are thus denied the benefits of the social side of the club—the association of members and the interchange of ideas and schemes which characterize our informal meetings.

The California meeting of the American Ornithologists' Union seems likely to be a success, as a circular describing the excursion has already been sent out by the committee. From this circular we learn that the "plan is to leave Chicago May 3, to reach San Francisco on or about May 13, and to hold a special meeting May 15-16 in conjunction with the California members of the A. O. U. and the members of the Cooper Ornithological Club." Already a local committee of arrangements has been appointed.

At the last meeting of the Northern Division, March 7, it was definitely decided that the Tenth Anniversary Meeting should be held at the Academy of Sciences in San Francisco, May 15 and 16, in conjunction with this special meeting of the A. O. U. The advantage of this arrangement is at once evident, and every one should be present, not only to make the two meetings a success in point of interest, but to become acquainted with those who attend. It is not often that our Eastern friends brave a journey to the "wild and woolly," and we should one and all assemble to help make their

trip to the West both enjoyable and long-to-be-remembered.

A committee now has the matter of the meeting and program in hand. You are cordially invited to write to the editor on the subject, so that we may gain some idea of who are coming. Later when plans are perfected notices will be sent to each member.

The A. O. U. Bird Bill, thru the activity of Mr. Wm. Dutcher, Dr. T. S. Palmer, Professor Wm. E. Ritter and others, has been introduced into the State Legislature. There seems to be a strong sentiment in favor of the measure, which should insure its speedy passage. The bill, which aims to give an adequate protection to our non-game birds, is essentially like the Cooper Club measure which was introduced two years ago, but which failed, as will be remembered, to secure the governor's signature. As the legislature adjourns within a few days, the fate of the bill will shortly be made known thru the daily press.

Both the editor and the business manager will be far removed from the scene of action during the coming summer. It is therefore requested that all longer articles intended for the July issue be mailed to Palo Alto not later than May 15.

It will be necessary to make a NOTICE up the July number very much earlier than is usual, as the proof sheets will have to make a round trip of some 6000 miles. As we examine at least three proofs the reason for the request is evident.

We regret that thru lack of space the FIELD AND STUDY section has been omitted in this issue. Many short notes will appear in the May number.

Owing to an unfortunate mistake the advertising pages in the January issue were numbered 31 and 32. These numbers have been duplicated in the present issue (frontispiece, as we do not publish 'plates').

It is probable that we will hold the May issue over a few days in order to include a report of the meetings. As we expect plenty of members here on the 15th the issue will not be missed!

### Notice to Members of Southern Division.

At the meeting of this division held on February 28, 1903, a committee was appointed to make preliminary arrangements toward the revision of Grinnell's "Birds of Los Angeles County." It is proposed to collect all material notes, etc., that will in any manner bear upon the species known to occur in the territory outlined in the above mentioned list. Members are especially requested to report all early and late nesting dates that come under their notice during the coming season with whatever migratory notes they may have.

A more detailed account of the work ex-

pected to be done will be published in the May CONDOR.

HOWARD ROBERTSON,  
49 Courthouse, Los Angeles.

### An Open Letter.

ALTONA FARM, LONGMONT, COLO.,  
FEB'Y 10, 1903.

MY DEAR FISHER:

I am so enthused over the last issue of THE CONDOR that I must write you a few lines, to try and spread my enthusiasm. Barring the unfortunate necessity of the "Memoriam" to our dear friend Barlow, the issue was certainly a "cracker-jack"—in fact the culmination of many good numbers which came last year. The extra good paper you are using in the make-up may be a trifle expensive now, but will prove cheap in the long run. It will stand the test of time, binding and usage much better than some journals of reference now twenty years old which were not published with the same foresight.

Periodically someone gets off a howl about the "Good old days," and "the O. and O.," "What it used to be" and "Why cannot we have something as good now." But THE CONDOR of today is a much better paper than the "O. and O." ever was. We must not forget that we are twenty years older than we were in those "Good old days," and possibly with our advanced information we would not now enjoy the "O. and O." as we did then. It certainly *was* delightful and amusing reading for us: the narratives of those "big sycamore climbs" and "stick in the mud" collecting trips. But as a magazine for reference, what is its price now compared to back copies of "The Nidologist" and the "Bulletin of the Cooper Club?" The "O. and O." *did* hold the old crowd together. That was a good feature and that is what our Eastern friends realize is lacking in the journals now in their hands.

Lattin's little sheet is filling its place and so is the "Auk." "Bird-Lore" and the "Osprey" are trying to do justice to the medium, with the result that the collectors are divided between the two and are not in unison. Your country out on the coast, to-day, has the best collectors, the best union, and consequently the best journal.

Last fall I experienced delightful visits with many of the "Old Boys," Jackson, Parker, Norris, Crandall and several others; men whom you will remember assisted in the make-up of the "O. and O.," and I talked CONDOR to them pretty strong. They all have great admiration for the workers out on the coast, and for your publication. They regret by contrast, their own lack of union and the decrease of good field work in the East. Since you publish as "A Magazine of Western Ornithology" do you care

to open your columns to the *use* of Eastern subscribers?

Oology was *primary* with us in the "Old Days," now it is *secondary* (to Ornithology). That fact has worked the change in the character of our reading matter, and those old collectors, who have not put the scalpel in a more convenient place on their table than the drill and blow-pipe, are behind the times and thereby deplore the loss of the old "O. and O." At the same time I find they value a set of eggs coming from a man with a good "skin record" like Anthony, McGregor or Grinnell about six times as much as they do a set from some of "Lattin's boys." Fisher! you should have seen the look of satisfaction on Crandall's face as he pointed out to me certain sets of eggs, here and there, with the remark that "they were some of Chester Barlow's collecting."

Cordially yours,  
FRED M. DILLE.

Mr. Dille's pertinent inquiry in his "open letter" as to whether THE CONDOR intends to adhere strictly to the policy enunciated in its title "A Magazine of Western Ornithology" may be answered in the affirmative. While we are always glad to publish notes and papers of a *general nature* from our eastern friends, those articles which are faunal or biographical must be distinctly western, or in other words must fall within our "geographical limits." When the present editor was associated with the late Chester Barlow, it was decided that these limits should arbitrarily extend from the west coast eastward to *include* Montana, Wyoming, Colorado, New Mexico and Texas. Outside of the United States our scope is somewhat elastic, and comprises the Pacific Coast generally, and islands of the eastern Pacific.

The right sort of bird material is limited, and we do not care to encroach on the rightful territory of eastern ornithological journals. The Cooper Club, too, is a distinctly western organization, and it is believed that to be successful, the more western its magazine the better.

### Obituary.

THOMAS E. SLEVIN.

Thomas E. Slevin died at his home in San Francisco, December 23, 1902. He was born January 20, 1871, in New York City, and came to the Pacific Coast in 1878. His love of natural history began when he was a mere boy and exhibited itself in a characteristic way. The first fruits of his ornithological endeavors are still preserved. From his father, the late T. E. Slevin, L. L. D., a founder of the Geographical Society of the Pacific Coast, he in-

herited his tastes for natural science, and his uncle was also much interested in birds.

Mr. Slevin spent much of his time in collecting faunal series, as his summers would permit, among the birds of the foothills of the Coast Ranges, and the Sierras. He was an expert workman, and a careful observer. His notebooks show much painstaking labor, in very full notes on the habits and nidification of many species. He spent the early part of 1902 in Arizona, in the hope of improving his lately declining health. On his return in May he began the recataloging of his large collection. In November he came to Haywards in hopes of some slight change, and during his short stay in the town, his love of the fields never lagged.

Mr. Slevin was unassuming and modest, and not given to publicity in his work. He became a member of the Cooper Club in January, 1899, and was also an associate member of the American Ornithologists' Union. - W. O. E.

#### GEORGE SHOENBERGER CHAMBLISS.

George Shoenberger Chambliss, a member of the Cooper Ornithological Club, died at his residence at Altadena, Los Angeles County, Cal., February 15, 1903.

Those of us who were intimately acquainted with him had learned to admire his sterling qualities and by them his loss will be keenly felt. He was not a collector of birds but a close student of their habits, and in many ways gave encouragement and substantial aid to those who were engaged in active work, especially during the past few years of his life when the inroads of disease prevented him from taking active part himself. It was during this period that he founded what is known as the Chambliss Ornithological Library, containing many rare and out of print works of the earlier ornithologists including Audubon's 1840-1844 Edition of American Ornithology. This library is in constant use by members of the club and others interested in ornithology and forms a nucleus which in time may become the leading ornithological library of the southwest. It is already a lasting monument to the part he took in gaining knowledge of our birds and to his generosity in placing it where it will do the most good. F. S. D.

#### THOMAS MCILWRAITH.

Thomas McIlwraith, one of the founders of the American Ornithologists' Union died at his home at Hamilton, Ontario, January 31, 1903. He was born at Newton, Ayr, Scotland on Christmas day, 1834. In 1853 he came to Canada to superintend the gas works at Hamilton. As early as July, 1860, and January, 1861, he published lists of the birds in the Canadian Journal, and in 1866 a more com-

plete paper in the Bulletin of the Essex Institute on the birds of Ontario. The two editions of the "Birds of Ontario" appeared in 1886 and 1894.—A. K. F.

### Minutes of Club Meetings.

#### NORTHERN DIVISION.

JANUARY.—The annual meeting of the Northern Division was held at the residence of W. Otto Emerson near Haywards, January 10, President Grinnell presiding, eighteen active members and seven visitors present. The program for the evening was first presented as follows: In Memoriam: Chester Barlow, H. R. Taylor; Remarks on the Ornithological Writings of Chester Barlow, Joseph Grinnell; The Conditions of Bird Study in the Mississippi Valley, C. R. Keyes.

The following were elected to active membership in the Club: Henry W. Fowler, Palo Alto; John M. Miller, Stanford University; Agnes Frisius, Alameda. Four applications for active membership were received, from Theo C. Zschokke, Palo Alto; Lloyd Newland, Palo Alto; Herbert Brown, Yuma, Arizona; S. B. Show, Stanford University.

Officers of the Club for 1903 were elected as follows: President, H. R. Taylor; senior vice president, W. Otto Emerson; junior vice president, Chas. S. Thompson; treasurer-business manager, Joseph Grinnell; secretary, C. R. Keyes. Mr. Taylor then took the chair and appointed Mr. Walter K. Fisher as editor of the Club's official organ and also as an additional member of the committee on arrangements for the Club's tenth anniversary meeting. After a dinner, and an informal exhibit of photographs by Mr. Finley and Mr. Beck, the Club adjourned to meet with President Taylor in Alameda on March 7.

C. R. KEYES, Secretary.

#### SOUTHERN DIVISION.

JANUARY.—The January meeting of the Southern Division was held on the 31st at the residence of H. J. Lelande, Los Angeles, with Mr. Daggett presiding. The following members were present: Messrs. Renwick, Richardson, Howard, Daggett, Swarth, Robertson and Lelande. Mr. Herbert Brown whose name was proposed for membership at the January meeting was duly elected. The secretary read a communication from Rev. F. Reiser tendering his resignation as a member of the club. On motion the resignation was accepted. A very interesting paper by Mr. C. S. Sharp, "Some Unusual Nests of the Bullock Oriole," was read and photographs of nests exhibited. A paper on "Bird Notes from Eastern California and Western Arizona" by Mr. F. Stephens was read by Mr. Daggett. After discussing various bird subjects the meeting adjourned.

H. J. LELANDE, Secretary.



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We should like to tell you about some other publications, but THE PLANT WORLD will do that if you will let it make your acquaintance.

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P. O. Box 334.



# THE **C**ONDOR

A Magazine of Western  
Ornithology



Volume V

May-June, 1903

Number 3



COOPER ORNITHOLOGICAL CLUB



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Entered January 16, 1903, at Palo Alto, Cal., as second-class matter.

## IMPORTANT NOTICE

Mr. Joseph Grinnell has moved to PASADENA, CAL., where all communications of a business nature should be sent. The editorial office remains in PALO ALTO, where manuscripts and exchanges should be forwarded.







PHOTOGRAPHED BY H. T. BOHLMAN

NEST OF SHUFELDT JUNCO  
(See page 95)

# THE CONDOR A MAGAZINE OF WESTERN ORNITHOLOGY.



Volume V

July-August, 1903

Number 4

## Call Notes of the Bush-Tit

BY JOSEPH GRINNELL.

(Read before the A. O. U.—Cooper Club Convention, May 16, 1903)

**D**URING three-fourths of the year the California bush-tits forage about in flocks. These bands may consist of as many as thirty individuals, but generally there are from fifteen to twenty. Although we call them flocks, they are not such in the sense that blackbirds or linnets form flocks; for the bush-tits never bunch together and mount high in air to take a prolonged flight. But they form a loitering company, scattered among several scrub-oaks or brush-clumps. There may be a general onward movement, for if a person locates himself in the midst of the restless drove, in a few minutes they will have almost all gone off in some particular direction. A few stragglers sometimes forget themselves, and suddenly feeling lost, fly helter-skelter after the main company with excited calls. Evidently there are some, perhaps two or three adults, who take the initiative, and involuntarily direct the movements of the younger or more timid individuals which follow along after. During such slowly moving excursions, each individual is rapidly gleaning through the foliage, assuming all possible attitudes in its search for tiny insects among leaves and twigs. The attention of each is on himself as a usual thing, but each is continually uttering a faint but characteristic simple location-note, a note of all's-well which indicates safety and also the whereabouts of the main body to stragglers, and each individual to any other.

At times, especially towards evening, the flocks become more restless and move along from bush to bush and tree to tree much more rapidly than when feeding, the birds straggling hurriedly after each other in irregular succession. During these hurried cross-country excursions, the simple location-notes are pronounced louder and are interlarded at frequent intervals with a shrill quavering note. The faster the band travels, the louder and more oft-repeated becomes these all-import-

ant location-notes; for the greater becomes the danger of individuals becoming separated from the main flock. Bush-tits are usually hidden from each other in dense foliage. They have no directive color-marks; therefore, being gregarious birds, the great value of their location-notes becomes apparent.

Should a bush-tit lag so far behind as to be beyond hearing of his fellows, he may suddenly come to a realization of his loneliness; he at once becomes greatly perturbed, flitting to the tallest available perch, and uttering the last mentioned note reinforced into a regular cry for his companions. This is usually heard by the distant band and several similar answering cries inform the laggard of the direction the flock has taken. Off he goes in zigzag precipitation and joins his fellows with evident relief. We may judge from the strongly gregarious habit of the bush-tits that each individual gains from the community life. Such mites of birds surely have enemies, and a clue as to the identity of one enemy, at least, was brought to my attention last summer at Pacific Grove. There I took from the nest a young sharp-shinned hawk, the stomach of which contained an adult bush-tit, in pieces of course. Those of us who have closely observed the bush-tits to any extent will certainly recall the following experience at one time or another. I myself have witnessed it scores of times. A flock of bush-tits will be foraging as usual, with the ordinary uncertain medley of location-notes, when suddenly one or two birds utter several of the sharp alarm notes and then begin a shrill quavering piping. This is taken up by the whole flock, until there is a continuous monotonous chorus. At the same time every member of the scattered company strikes a stationary attitude in just the position it was when the alarm was first sounded, and this attitude is maintained until the danger is past. In nearly every case the danger is in the shape of a hawk, more especially of the smaller species such as the sharp-shinned or sparrow hawks. No matter how close the hawk approaches, the shrill chorus continues and even intensifies until the enemy has passed. The remarkable thing about this united cry, is that it is absolutely impossible to locate any single one of the birds by it. The chorus forms an indefinitely confusing, all-pervading sound, which I know from personal experience to be most elusive. It may be compared in this respect to the sound of the cicada. This confusion-chorus, as I think it might be appropriately called, is a sure sign of the appearance of a small hawk even a long way off. Often long before I could myself locate the hawk, a neighboring band of bush-tits would have set up their cry, thus announcing its approach. It seems reasonable to infer that this monotonous chorus of uncertain direction, at the same time as it sounds a general alarm, serves to conceal the individual birds, all of which at the same time maintain a statuesque, motionless attitude. Their colors also harmonize closely with the shadows of the foliage. The whole evidently forms a composite protective device, which must be, as a rule, effectual. Scarcely any attention is ever paid by the bush-tits to large hawks, such as buteos, or to other large birds such as turkey vultures, pigeons, or jays. The bush-tits seem to be able to easily identify their real enemies at surprisingly long range.

It is also of interest to note that mammals, large or small, are seldom stigmatized by the confusion-chorus. If a person, or dog, or similar animal appears among a flock of bush-tits, a bird here and there may utter a sharp repetition of the simple location-note very much augmented in volume. But after a moment's quiet, during which the birds intently survey the cause of the alarm, the flock goes on with its busy foraging, and usual miscellany of location-notes. Very often no attention at all is paid to a person, the birds flitting about heedlessly within a few feet of him.

During the short breeding season from March through May, when the flocks are disbanded and the birds are in pairs, the same notes are used between the mates. These express about the same meaning as during the rest of the year, but of course, often have to do with the nest and young. But there is no vestige of a distinctive spring-song, as I have seen ascribed to the bush-tit.

To summarize: I have attempted to describe more minutely the bush-tit's notes as they sound to me. Of course I realize how hard it is to describe bird-voices. And also, as I have often had opportunity to note, hardly any two persons receive the same impression of a single bird's song. No two people seem to hear exactly alike.

Each of the five notes defined beyond is perfectly distinct, and each at once signifies to me some particular and easily recognizable state of mind of the birds in question.

1. Faint one-syllabled simple notes, usually uttered in irregular succession while the birds are undisturbed, and intently gathering food or nest material. (*Tsit, tsit; tsit; tsit.*)

2. From one to five of the simple notes uttered somewhat more loudly and followed by a rather shrill quavering note of longer duration. This is uttered among members of a flock or between a pair of birds when not intently feeding, but when moving more or less rapidly with restless activity from tree to tree in some definite direction. (*Tsit, tsit, tsit, sre-e-e-e; tsit, sre-e-e-e.*)

3. The same as the last, that is, the one to five simple notes followed by a quavering trill, but pronounced with much more volume and emphasis, and, according to circumstances, more hurriedly. This is uttered by lone individuals suddenly finding themselves separated from one another or from the main flock. (*Tsit', Tsit', sre-e-e-e'.*)

4. Of the same quality as the simple one-syllabled note first described, but greatly intensified, and pronounced abruptly, several in rapid succession. This is uttered by parent birds when a nest is disturbed, and by a few certain individuals in a flock, upon the first appearance of any enemy. In the case of mammals, such as a cat, hog, or squirrel, or a person, this simple alarm-note is not followed by the confusion chorus to be next described. (*Tsit''; tsit', tsit'; tsit''.*)

5. A shrill quavering trill, of the same quality as described under No. 2 above, but without the preceding simple notes, and chanted continuously in a monotone by all members of a flock for as long as two minutes. This peculiar chorus is uttered only during the presence of such an avian enemy as the sharp-shinned, Cooper, sparrow, or pigeon hawk, and owls, if these latter happen to be startled into a day-time flight, as occasionally happens. (*Sre-e-e e-e-e, etc.*)

### The White-necked Raven

BY VERNON BAILEY

MY first acquaintance with the white-necked raven began late in November of 1889 at Wilcox, Arizona, where a flock of about fifty of the birds were feeding around the stock yards and cawing hoarsely from tops of telegraph poles with apparently no notion of migrating to warmer latitudes. At El

Paso, Texas, where they commonly remain throughout the winter, I found them up to the last of December one of the most abundant and conspicuous of winter birds, associating in noisy crow-like flocks around the outskirts of town, neighboring stock yards and ranches. In such places they show a bold intelligence not found in the wary crow, and are always ready to co-operate with man in any such mutual benefit scheme as the disposal of garbage, the removal of superfluous flesh and grease from hides hung out to dry, or the saving of grain that has been scattered along the roads. On a cold morning I have seen a dozen of them in the pig pen, sharing the breakfast of the pigs, pushing and crowding for the scattered corn in a very frank and business-like way. Along the suburban streets of El Paso they would walk aside to let me pass with my gun, eying me shrewdly as much as to say, "It's against the law to shoot inside the city limits," but out on the mesa they would keep well beyond shot gun range and sound an alarm at the first sight of a distant hunter.



CORVUS CRYPTOLEUCUS ON YUCCA RADIOBA AT  
VALENTINE, TEXAS

In spring they scatter out over the desert valleys and become silent and shy while preoccupied with home duties, and then any old bunch of sticks in the top of a tall yucca may contain a set of their brown spotted eggs. From below, the nests usually have an ancient tumble-down appearance caused by straggling remains of previous nests, but from above they are found to be well built up each year when occupied.

In the accompanying cut from a photograph taken near Marathon, Texas, May 12, 1901, the nest shown was about twelve feet from the ground. By getting on top of the 'hack' I could look into its deep cup-shaped cavity where the five eggs rested snugly on a soft lining of yucca fiber, deer hair and rabbit fur, and was surprised to find the inside so well built in contrast to its rough exterior. The old bird had slipped from the nest as we approached and

quietly disappeared but was soon seen again with her mate watching us from distant yucca tops. Before we were twenty rods from the nest she was back in it again carefully inspecting damages.

Later in the season when the young were out they were all as noisy as crows, whether lined up on a corral fence, gathered in a family circle around the remains of a slaughtered beef, or chasing grasshoppers and lizards in the open valley. The abundant and juicy fruit of the cactus, *Opuntia*, *Cereus*, and *Mammalaria*, supplies part and probably a large part of their food during July, August, and September, enabling the ravens as well as some of the mammals and even men to make long journeys into waterless valleys with comparative comfort.

Out in one of the driest, hottest valleys of the Great Bend country of western Texas a pair of big Mexican ravens came beating over the valley ahead of our outfit one day, when they were suddenly attacked by two pair of the smaller,

quicker, white-necked ravens. The attack was vigorous, not to say vicious, with quick repeated blows and pecks till the feathers flew. From start to finish the big birds sought only to escape, but this seemed impossible. They pounded the air in vain effort to out-fly their tormentors, dove to the ground but were forced to take wing again, circled and beat and tacked to no purpose, and finally began mounting steadily in big circles, taking their punishment as they went, the smaller birds keeping above and beating down on them in succession till all were specks in the sky, and finally lost to view. Such a drubbing I never saw a smaller bird inflict on a larger, before or since, and it was probably well deserved. The nests of the white-necked ravens are unprotected from above and eggs are said to be a delicacy to any raven.

Be that as it may, the breeding grounds of the two species rarely conflict, *sinuatus* keeping to the tall cliffs and mountains and apparently for good reasons rarely entering the nesting valley of *cryptoleucus*.



FROM THE BIOLOGICAL SURVEY

NEST OF *CORVUS CRYPTOLEUCUS* IN *YUCCA MACROCARPA*;  
MARATHON, TEXAS

### Notes on the Bird Conditions of the Fresno District

BY J. M. MILLER

A LARGE portion of the San Joaquin Valley has undergone so rapid a change during the past twenty years that the conditions of bird life there have been practically revolutionized. The topographical features which at one time favored or discouraged bird life have disappeared and new features present the conditions for a different and more varied fauna. This change has been due to artificial irrigation. Large areas where formerly only the bare plain stretched away without a tree in sight for miles are now covered with orchards, vineyards and thriving alfalfa fields and dotted with homes and shade trees. This rapid transition presents a field for local study which has never been thoroughly covered.

The early prairie-like conditions of the plain before the advent of the big irrigation systems favored only a decidedly limited fauna both in species and num-



bers. Along the banks of streams, such as the San Joaquin and Kings River and a few smaller creeks where moisture was plentiful and trees and plants abundant, birds thrived and the avifauna was about the same as that of the lower mountain districts. But in many places no such stream existed within a radius of less than ten or fifteen miles. Scarcely a tree or living shrub existed any nearer; and birds or any inhabitants would have to be such as could adapt themselves to such barren conditions.

During the summer months the long absence of rain dried the alluvial areas so that the country was almost desolate in appearance. The level of the plain was broken occasionally by winding, shallow depressions, called by the settlers "sand hollows." These by some are said to be the remains of old water courses. The influence of irrigation has brought the underground water so near the surface that the "sand hollows" have been transformed into extensive ponds which are the reproductions in miniature of the old Tulare Lake. The same cause, irrigation, from which Tulare lake nearly went dry a few years ago, has filled these dry hollows with water and they are now teeming with all the varied forms of plant and animal life once found along its shores.

The burrowing owl, one of the most prevalent species formerly, is now becoming extinct wherever the country is thoroughly cultivated. These owls live and nest in the discarded burrows of squirrels, and the plentiful irrigation, which, in time, drowns out the squirrels, is far more fatal to the owls. The nightly "cuckoo" of these birds is seldom heard wherever the country is intensively cultivated. The meadowlarks also are far from being as plentiful as they once were, for the same causes which are exterminating the owls make nesting a very difficult and uncertain matter for the ground-nesting larks.

It may be said that the advent of orchards and vineyards and the multiplication of other conditions upon the plains favoring the lives of many other birds, has caused the bird population along the streams and in the foothills to overflow into this new territory. The population in some districts has increased extensively and a few species have increased to such an extent as to become a positive nuisance to the fruit growers at certain seasons of the year.

The migrations through the valley are of separate interest. During the winter months birds of the higher mountain districts are often seen upon the plains. However, it can hardly be said that the new conditions influence the migration of birds to any degree. An abundance of spring migrants arrive every year, but in all probability they are the same species which formerly came every spring to the more favorable localities of the valley.

### A Morning With the Birds of Juan Vinas, Costa Rica

BY MERRITT CARY

WHILE in Costa Rica last year with Prof. Lawrence Bruner and M. A. Carriger, Jr., of the University of Nebraska, I secured a number of bird notes which I thought might be of interest to CONDOR readers.

For three weeks we had been collecting at the Estancia Jimenez, far up on the southeast slope of the Volcan Irazu, and in Monte Redondo, a mountainous

region lying to the southwest of San Jose. On March 11, acting upon the advice of both Dr Jose Zeledon and Mr. Cecil F. Underwood of San Jose, we went down to Juan Vinas, some thirty-five miles east on the Ferrocarril de Costa Rica, where we were assured of good ornithological as well as entomological collecting. Fortunately Mr. Underwood accompanied us.

The altitude of Juan Vinas is about 3,000 feet, and the scenery picturesque. Situated on the border of a large savanna, well up the mountain slope to the north of the Rio Raventizon, the stream is seen a thousand feet below as a winding silver thread, bordered on either side with jungles of a rich green.

The dawn was yet scarcely breaking the morning after our arrival when we were awakened by the sweet notes of meadowlarks, which came floating softly to our ears from the savanna. We could more readily imagine ourselves home again, on the northern prairie in the early springtime, than in this far-away southern clime.

Soon other birds were heard—songs strange and unfamiliar to our northern ears. Within a short fifteen minutes the jungle was filled with an endless variety of bird notes. There was not the slow, gradual swelling of the morning chorus as in the north; but after the first notes of the earliest birds there was a sudden outburst of melody.

While disposing of our morning "coffee" the day's trips were planned, and I decided to accompany Mr. Underwood to the savanna and adjacent wooded slopes.

In some bushes near the house were a number of Passerini tanagers (*Ramphocelus passerinii*) which reminded us, in their jerky flight and movements, of the orchard oriole. As the birds moved about, their red rumps flashed brilliantly in the morning sunlight, and contrasted strongly with their black bodies and the dark green foliage. Several small finches with yellow face-masks were feeding in the short grass beneath the bushes and Mr. Underwood shot a pair, which proved to be Mexican grassquits (*Tiaris olivacea pusilla*). Later I often saw the grassquits feeding in the tall grass of the savanna, and once saw several sitting on the telegraph wire, occasionally uttering a few lively notes.

As we passed on toward the savanna bird-life became more varied. A beautiful wren-like song attracted us to some low bushes in the edge of the rank marsh grass. The singer, a small buff-breasted wren, was secured and found to be *Troglodytes intermedius*. Several others of the same species were soon afterwards located by their notes, but were extremely shy, and kept well concealed in the matted cover. When at intervals one did come above the level of the marsh it perched on an exposed twig for a few moments and gave forth its sweet song, differing from that of the *aedon* chiefly in slower measure.

While beating the grass for the wrens, Underwood secured a bright male Baird yellow-throat (*Geothlypis semiflava bairdi*), and several times we caught glimpses of a small brown rail<sup>a</sup> as it sneaked silently but quickly into denser cover. Numbers of large, yellow-bellied flycatchers (*Myiozetetes* sp.) were noisily mating in the larger tree clumps, and occasionally a very small flycatcher, *Todirostrum cinereum*, was noticed on a low, exposed climb. When seen thus—alternately darting after a passing insect, and again remaining stationary as it uttered a sharp little note accompanied by an energetic jerk of the tail, the bright yellow underparts made it a striking object indeed.

Another flycatcher noted here was *Myiarchus lawrencei*, a bird of somewhat

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<sup>a</sup> Probably *Porzana cinereiceps*.

solitary habits, which frequented the tops of small trees and at intervals uttered a melancholy, quavering note.

Having now become acquainted with some of the birds in and near the savanna we turned at right angles and followed a narrow trail through the jungle leading toward the high, wooded slopes on the north. Noisy ring tanagers followed us for some distance, seemingly much disturbed at our invasion of their domain, but kept well concealed in the dense undergrowth; while several times the peculiar *oop-oop, oop-oop* of a mot-mot led us on a vain chase through a jungle made penetrable only by the liberal use of our machetes.

In one of the densely shaded nooks along the trail I saw a large spider's web agitated by what at first was to me an unseen force, in the semi-darkness. Soon,



TREE SHOWING NESTS OF ZARHYNCHUS WAGLERI

however, my ears caught a faint humming sound, and I saw a small body faintly outlined just above the web, every few seconds darting towards it. At the first glance it appeared not unlike a large hawk-moth belonging to the *Sphingida*, so common about flowers in the tropics; but a careful approach revealed a hummingbird with a rufous rump. Suddenly it vanished, and upon examining the web I found that many of the silken filaments had been torn apart and carried away, presumably for nest material. Again I heard the humming, and saw the little wood's-sprite in the air a few feet from my head, the wings moving so rapidly as to present only an indistinct blur in the gloom. I 'froze' (apologies to Thompson-Seton), and thus bird and man regarded each other for some minutes, until a loud "hallo-o" from my companion broke the spell, and caused me to join him farther up the now ascending trail.

Meanwhile several birds had fallen to Underwood's gun, including two woodpeckers, *Melanerpes hoffmani* and *Chloronerpes yucatanensis*, a peculiar cuckoo-like bird, *Piaya cayana thermophila*, having a long graduated tail, and a large Costa Rica woodhewer (*Xiphocolaptes emigrans costaricensis*). We had now emerged from the jungle into an open, park-like *portrero*, or pasture, where the trees were much larger, and grew in scattered clumps. Roots grew out from the trunks at a good height and hung to the ground like immense cables, while the upper branches supported an endless variety of orchids, bromelias, air plants, mosses and lichens.

A small tree having sweet-scented, white flowers was resorted to by humming birds in large numbers, Reiffer hummingbirds being the most abundant. A large species with a white rump was not secured. One male specimen of the Helana coquette (*Lophornis helenæ*), an exquisite little gem, was taken high up in a tree at the long, tubular, pink flowers of a climbing vine. The coquette is a very small object when feeding in this manner, and as it does not hum loudly in comparison with other species often escapes detection.

Some guava trees next investigated yielded specimens of Wilson black-cap and chestnut-sided warblers, and summer tanagers, all in poor plumage. A squirrel (*Sciurus aestuans hoffmani*), busily breakfasting on the guava fruit, was also taken, and a handsome fellow he was, with his long, silvery tail and fiery underparts. By this time our presence had been noted by a troop of white-tailed brown jays (*Psilorhinus mexicanus*), in some trees on the farther edge of the *portrero*, and they flew away with a great clatter. Many of the small birds appear to rely upon *Psilorhinus* as a sentinel, for we immediately noticed a great depletion in their numbers. A peculiar croaking or rasping note drew our attention to a pair of cotingas (*Tityra semifasciata personata*), moving about among the dead limbs of a tall tree, and both birds were secured by a lucky shot. The male was a delicate shade of plumbeous white, with darker wings, and we found great difficulty in keeping the fine plumage of both birds clean on account of the flow of blood from the wounds.

A larger tree in the center of the *portrero* was occupied by a colony of Wagler oropendolas (*Zarhynchus wagleri*)—commonly called weaver birds in Costa Rica. As many as fifty of their beautiful, pendant nests, each one three or four feet in length, hung from the terminal foliage of the upper branches; the various tree mosses of which they were constructed giving to them a greenish gray color. As we approached, twenty or thirty of the birds flew swiftly away with rapid wing-strokes, but a number remained and peered down at us through the foliage, chattering noisily all the while. A few went into the nests through the entrance hole near the top of the structure, while still others merely poked their heads out.

Very young birds were found a few days later in the four nests hanging from the first branch, and seen near the main trunk in the lower portion of the plate."

Great difficulty was experienced in securing these nests for examination, Mr. Carriker being obliged to climb the smooth, slender tree to a height of some forty feet before reaching the first branch. He then cut off at the base the slender limb bearing the nests, and carefully lowered them to the ground. After examining the young birds the nests were fastened to the lowest branch of the tree in the hope that the parent birds might find and care for the young ones. While in the tree Mr. Carriker also secured several empty nests which were preserved as specimens.

Among others the following North American birds were noted by Mr. Underwood and myself in the *portrero*: swallow-tailed kite, sparrow hawk, black vulture, mourning dove and scissor-tailed flycatcher.

a. Taken near La Gloria, five miles east of Juan Vinas. There are over thirty nests in the colony.

The bright tropical sun was now high in the heavens, and most of the birds had sought shady retreats to pass the stifling heat of midday in silence. We heard only the harsh notes of chachalacas, and the soft cooing of wood pigeons on the hillside, as we started on our return. Space is lacking to mention in detail the many incidents of our walk back to Juan Vinas, or the wealth of tropical verdure and insect life on which our eyes feasted.

Great, superb *Morpho* butterflies, with wings of iridescent blue, often came flapping by in the narrow trail, only to immediately disappear in the jungle. When followed, tantalizing flashes of blue would lead me far back into densest thickets, where my phantom would disappear completely, and unless I chanced to see the dark outline, and large owl-like eye spots of the under wings against the lichen-covered tree trunk to which the insect clung, it was rare indeed that I gathered one into the folds of my net.

In the darkest shades, where the rays of sunlight seldom penetrated the leafy mantle overhead, hundreds of *Heliconians*—butterflies with transparent wings, varied with shades of brown, red, black, white and blue—danced about in the soft light presenting a most mystifying appearance when seen for the first time. Here, also, two large *Caligo* butterflies were met with, even larger than the *Morpho*; the upper wings, instead of bright blue, a dark brown or plumbeous color—modified to harmonize with the perpetual shades of their environment.

But I have wandered far from my subject and taken up too much valuable space. Suffice it to say that for two weeks each day was a repetition of the first days of unalloyed pleasure.

Among our pleasant memories of Juan Vinas, and the one which will without doubt be the most lasting, was a midnight serenade accorded us by the two *Gatos* (cats), wandering Indian musicians of the Tuecirici tribe. Neither of the Indians had ever seen a musical note, yet they played the guitar with a remarkable depth of tone, and produced the most ravishing strains of music—strains which could have their origin only in the soul of one in complete harmony with Nature's music.

### Nesting Habits of the Shufeldt Junco

BY HERMAN T. BOHLMAN

A SHORT description of the nesting habits of two Shufeldt juncos (*Junco oreganus shufeldti*) which came under my observation in the spring of 1901, may be of interest to fellow students of bird-lore.

I have found the junco in the vicinity of Portland to be very partial in the selection of a nesting site, to the cuts or embankments which exist along the railroad, electric lines and country roads which wind through the hills south of town. It has been my habit, when the first of May comes around each year, and later as well, to make short expeditions along these lines, and 'switch the cuts' as we termed it. On arriving at the field of operation a light, green sapling, twelve to fifteen feet long was cut, and as I nearly always have a companion in the field, we would walk up the track, diligently applying our switches to the embankments, until we were rewarded by the flushing of a junco from its nest, while the rush and roar of the passing train never disturbed the occupant.

On May 14, 1901, two nests were discovered in this way not 200 yards apart, that were peculiar in the marked difference of their lining. In other respects the

nests were identical. Both were constructed of an outer layer of coarse grasses, then a thick layer of finer grasses, and a lining of cow hair. The inner cavity measures two and one-fourth inches across and one and one-fourth inches deep, while the outer measurements are two, and two and one-half inches in depth respectively. The contour is elliptical, in each case being four by five inches. Both nests were placed within a foot of the upper edge of a steep embankment in a shallow cavity, and the nest wall where it rested against the earth in the rear, was made of double thickness, or fully as thick as the bottom, being one and three-quarters inches in thickness, while the front and side walls were one inch or less, this doubtless being a provision to keep out the dampness resulting from contact with the earth.

The lining of these two nests is an interesting matter for speculation, as the one bird chose only pure white cow's hair without a dark one to mar its beauty,



PHOTO BY H. T. BOHLMAN

NEST OF SHUFELDT JUNCO

while its neighbor chose the same kind of hair, but of the most intense jet black, and as the two nests are before me, the contrast is very marked, but does not show to good advantage in the accompanying illustrations.

The interesting point is, did each of the birds possess an eye for color, and an individual taste and preference for a certain color, or was it merely a matter of circumstance which found a quantity of white or black hair convenient to each nesting site?

The eggs in each case were four in number, the usual complement. Those in the light nest were fresh, while the other set was advanced in incubation. The set in the black-lined nest has a ground color decidedly bluish, with distinct chocolate markings, mainly at the larger end, and are strong and decided in their spotting, while those in the white lined nest have a very pale pinkish ground color, profusely marked with reddish, and deeper pale lavender shell markings which give them a very delicate appearance, in perfect harmony with the color of the nest lining.

**Cassin Auklet, *Ptychoramphus aleuticus***

BY HOWARD ROBERTSON

ON Thursday afternoon, June 8, 1899, after the only pleasant day's sailing on a two week's cruising trip, we arrived at Santa Barbara Island, to extend our ornithological investigation and add a few more specimens of birds and eggs to our collections. We had had several day's collecting on the Anacapa Island, resulting only in the taking of numerous sets of the western gull and a few birds. We had hoped to find the Cassin auklet breeding here, but our observation only extended in any degree of completeness to the northern island of this group; and not finding the auklet burrows there, and being concerned in saving our necks, had declined to scale the sides of the middle island. We knew from a previous record published by Mr. Grinnell that the auklet bred in numbers on Santa Barbara Island, and our captain promising to land us in a place of easy access, we lost no time in covering the distance between.

We reached Santa Barbara about 2:30 P. M., and anchoring in a large cove, immediately loaded our skiff and rowed to the shore. The sides of the island around the cove drop very abruptly to the water-line, while beyond, to the north-east, it slopes gradually down to the water's edge. We had hoped to land at one of these low places, but our captain much preferred to land us on a large rock inside the cove; and there he accordingly dumped us, and after pulling the skiff up on the rock, we scrambled, with the best of our ability, and by the aid of an old rusty chain, to the top of the island. We threaded our way among the gulls' nests and, after examining a few, proceeded to the southern end, where the higher land slopes gradually towards the cove. Here we found a number of auklet burrows and at once went to work. There is no particular rule in auklet land that we could find for the birds to follow in their home building. Each bird seems to follow its own idea (and that is often crooked) in its method of digging, while his neighbor perhaps, in a spirit of conceit, in trying to improve, makes matters (for the collector) ten times worse. We examined many burrows, some of which were easily followed to the nest, and others, on account of the many turns, had to be given up entirely. They ranged in depth from two feet to six or seven feet, some being tunneled just beneath the crust of the ground, while others went straight in and, on account of the dust and accumulating dirt, were very hard to follow. There was one burrow that was something of a curiosity. It was dug in the form of a spiral, the nest being placed, after two complete turns, almost directly underneath the entrance. Near the entrance of many of the burrows there were a number of old sticks and feathers, probably the remains of a last year's nest. I think in nearly all the instances where this occurred the burrows were occupied. The nest was invariably placed at the end of the burrow, though in several instances the burrow extended beyond a short distance, perhaps six or eight inches, and was composed of a few sticks and a few loose feathers, placed indiscriminately on the damp sand. In placing the hand in an uncovered burrow over the unoccupied nest, a certain degree of warmth could be felt, caused without a doubt, by the heat from the body of the incubating bird and retained by the damp sand.

The egg, when fresh, is of a creamy white color and they vary greatly in size, as the examples here will show. After incubation has commenced the shell becomes darker, more toward a light bluish color and is very often discolored. One of the parent birds was present in each nest that contained an egg and care had to



be taken in its removal, because auklets have very sharp toes! When once out from its dark burrow and brought into the bright light, the bird had some trouble in getting its bearings; it would flutter about hopelessly a few moments and then, suddenly righting itself, dart quickly over the cliff toward the ocean. I watched several during a performance of this kind and found I could follow them with my eye until they struck the water, when the color of the bird and that of the floating kelp blended so nicely, that, at a distance, one could not be distinguished from the other.

In many of the nests there were young birds ranging in age from those newly hatched to ones nearly full grown, having only a little down clinging to the feathers about the neck. The little fellows were of more interest than the others; they looked for all the world like little black chickens, downy and soft, but too dainty to handle. When brought into the light they would sit blinking at you with the wise expression of the proverbial owl.

We examined in all a great number of nests and found very few empty ones; in those containing young birds, the parent bird was always absent, as there would be hardly room for the old bird and a young one half grown. Our observation extended only to this one colony. I have no doubt that the birds nested elsewhere on the island; but our time was limited to part of one afternoon and the next morning, so we could not do as much exploring as we wished. We finished off nicely, and having plenty of specimens, were anxious to set sail for Santa Monica, where we could get a square meal and a good wash. Our captain, while an expert oarsman, was a headstrong sailor, and no doubt questioned the old adage that "a miss is as good as a mile." His curiosity respecting the truth of this often carried us into some ticklish places, and we were heartily glad to scramble up on the wharf at Santa Monica and feel something solid beneath our feet again.

### Notes from Santa Barbara, California

BY JOSEPH MAILLIARD

WHILE in Santa Barbara, recuperating from illness, from the middle of April until the latter part of July of last year, I utilized my time in doing what little my health would allow in the way of collecting birds and notes appertaining to them. My efforts being greatly restricted by circumstances the results were not by any means as great as could be desired, yet it was my intention to publish a list of the birds not noted in Jeffries' article, *Auk*, V. April, 1888. On second thought, however, the probability of being able to do more and better work in this vicinity at future dates leads me to postpone doing so until my notes are more voluminous. Later on, with the assistance of Mr. A. P. Reddington of Santa Barbara, I hope to be able to publish an annotated list that will be of greater interest and value.

Birds seemed to me to be very scarce that spring, and this idea was confirmed by residents interested in such matters. My observations were necessarily confined mostly to the outskirts of the town, and in this territory the apparently abnormal destruction of birds' nests was most noticeable. Though not making a specialty of nests a good many were noted. Not being allowed to climb trees, those above reach could not be observed, but of the many recorded for the purpose of noting

duration of incubation and stay of young in nest all were destroyed by one agency or another. Most of these nests were of California towhee, house finch, Arkansas goldfinch, hummingbirds, etc., but as sure as one was recorded in my note-book so sure was it to be destroyed. Most of the agencies of destruction could only be surmised, such as jays, cats, snakes, etc., but several nests were blown away by the strong north winds that sweep through here in the spring from time to time. Some nests were deserted soon after construction, but most of them were robbed, or destroyed, at periods varying from that of fresh laid eggs to young within three days of leaving. In the cases where young were destroyed it is more than probable the numerous and voracious colonies of ants in this neighborhood may have been a factor, as Mr. Reddington tells me that these insects give him a great deal of trouble among his pet bantams while the young are still small. This destruction or desertion of nests may have appeared larger in this than in other places on my records on account of the proximity to the town causing the presence of numerous cats to kill, and people to frighten away the birds, but the conditions are most certainly discouraging to the observer, and more so to the birds themselves. In the territory worked over the small boy did not appear to cut much figure, as he was seldom met with.

Another matter noted was the extremely early moulting of many of the birds of this locality. There may be observations on this subject extant, upon southern birds, which have escaped my attention or memory, but it seemed remarkable that so many birds should be in poor feather as early as April 15th, just the date at which the best plumage would naturally be expected. During my visit to Santa Cruz Island in April and May, 1898, these conditions did not exist in that locality, and the birds there were in fine breeding plumage, with the exception of the horned larks which are generally in poor feather very early, and this in spite of an abnormally dry season when all the grain died at the height of six inches. Yet here in Santa Barbara, as early as May 15 while still nesting such birds as jays, finches, wren-tits, wrens, bluebirds and other residents were in the state of moult, that one would expect to find in July or August. Even freshly arrived migrants, such as the different *Empidonax*, *Helminthophila*, etc., with some exceptions, were in a partial state of moult, the exception being the orioles, blackbirds, phainopeplas and a few others, which were in a normal seasonal plumage.

Some of the birds were not only moulting but also had their feathers actually worn away by the wind. In fact all of them, except those whose habits led them to remain for the most part hidden close under brush, showed more or less of this wear. In dry climates it is usual to find more or less abrasion among the old feathers. The climate of Santa Barbara itself is more or less humid from its proximity to the sea, and though not very much rain falls it is hardly dry enough to compare with the interior, hence this abrasion must be caused by some other agency, which can be nothing else than the heavy north gales that strike the valley from time to time in the spring and usually blow for two or three days at a stretch, and are, as a rule warm and dry. In the vicinity of the town there is but little wind except these gales, and the specimens from here show much less wear than do those from the vicinity of Point Conception. Mr. Reddington kindly collected some birds from this latter place and also from the Santa Inez River valley, some twenty-five miles north of the town. At Point Conception a strong wind is almost constantly blowing, and the specimens from there show this abrasion to a remarkable extent, in many cases the feathers of the head, breast and back being worn down to a sharp angle, with hardly sufficient of the outermost barbs and

barbules left to give a decided color to the bird. One juvenile Red-shafted flicker from there, a fully grown bird, taken on May 30, distinctly shows this abrasion, though it had not progressed sufficiently to greatly dull the fresh coloration of the feathers. On the other hand the Santa Inez River valley is greatly protected from strong winds, and the specimens from there showed no more abrasion than is normal in a dry climate.

The lutescent warblers (*Helminthophila celata lutescens*) taken near the town, on their first arrival even, had all their feathers so much worn at the ends as to destroy the tone of coloration, and evidently showed that their northward trip had been a continual bucking against head winds. All the specimens collected of this species were taken between April 25 and May 2, after which date none seemed to have remained, even in spots apparently well adapted to them for breeding grounds.

I had hoped to secure a fine series of Arizona hooded oriole (*Icterus cucullatus nelsoni*) but these birds confined themselves entirely to the gardens in the town, where their nests were frequently in evidence under the overhanging leaves of bananas and palms, with telltale shreds of fibre hanging down sometimes for a foot or so. Not a single specimen was met with outside the town limits.

The rufus-crowned sparrow (*Aimophila ruficeps*) was discovered breeding in the vicinity of the town, and in fact one specimen was secured within a couple of hundred yards of the old mission. The first one of this species was captured on May 27, its mate escaping from me. One or two more were seen at different dates and two juveniles taken near where the first one was secured, on June 13, as well as the one near the mission, prove that this species breeds here, though I believe there is no previous record from this county.

Anna hummingbirds were in evidence everywhere, and very numerous, but while many unidentified females of the smaller varieties of hummingbirds were met with, the sterner sex of the Allen, black-chinned, and Costa were seldom seen and but few specimens of these taken, though they were probably feasting among the gardens of the town while their domestic partners were attending to household duties.

Bullock orioles, ash-throated flycatchers and Arkansas kingbirds were very numerous upon their first arrival, about the middle of April, but these scattered around the country to their favorite breeding grounds and soon became scarce in the outskirts of the town.

Parkman wrens (*Troglodytes aedon parkmani*) were more numerous in this locality than in any other place that I have ever visited. In fact they seemed to be everywhere, while Vigors wrens, though frequently heard, were very difficult to secure. It appeared to be a foregone conclusion that when a Vigors was heard singing in a live-oak, and what seemed to be the songster was shot at, a Parkman wren was sure to fall, while the former dodged off to the next tree to continue his song. To an accustomed ear the respective songs are so different as to be unmistakable, and yet this result occurred again and again so that but few Vigors wrens were secured, the fact being that they were very wary while the other wren was not at all so, and that the Vigors would stop singing the moment it caught sight of a person while there was sure to be a Parkmans moving around within a few feet of the spot where the singing ceased.

The date of nesting of the white-throated swift (*Aeronautes melanoleucus*) in this vicinity was definitely ascertained by the taking of a female, on May 19, containing an egg almost ready to be laid, with appearances indicating that one or more had already been deposited in the nest. The rocky mountain range back of

the town must present many most desirable breeding localities for these birds, though but few were seen at any one time.

A few thrashers were obtained both from Santa Barbara and Point Conception, though hardly a sufficient number to be of definite value for comparison. A distinct difference in shade of coloration was noticeable however between the specimens from the two localities, so much so as to enable one to separate them at a glance. The Point Conception specimens are of a lighter shade on lower parts and whiter on throat, with line of demarkation on breast between lighter and darker feathers more pronounced than in those from Santa Barbara itself. This difference did not appear to be due to fading, moulting, or wind abrasion, and on further investigation with a good series may prove to be geographical variation. The seasonally late dates on which these specimens were secured were unfortunate as the wing and tail feathers are so badly worn at the end as to have no mensurative value.

California jays were not numerous in the territory visited, and were rather shy, so a much smaller series was taken than had been hoped for, especially as quite a curious fact is noticeable among specimens secured. This is that all those from Point Conception, and the only adult from the Santa Inez River have the lower mandible greatly worn off at the point, causing it to end as if filed squarely across, with a slight backward bevel, but with the file not held sufficiently tight to ensure a flat surface. In some cases the lower mandible is at least one-tenth of an inch shorter than what it apparently should be. The upper mandible in some of these specimens is worn and blunted to some extent, while in others, where not so worn is so much hooked over as to appear abnormal. The specimens from Santa Barbara township, however, have nothing unusual noticeable about the bill. In series from other localities individual idiosyncrasies of various kinds will be found, but in this instance, of the nine adults secured, the four from Point Conception and the single one from Santa Inez River show the same peculiarity, though the typographic, climatic, and floral conditions differ considerably, while the four from Santa Barbara show nothing but a reasonable amount of wear. Unless further observation prove the hypothesis incorrect it would seem as if this abnormal condition was the result of some difference either in the food itself or in the manner of securing it, as the birds may be in the habit of striking the lower mandible against hard ground or rock when capturing or gathering its food.

### Bird Notes from Eastern California and Western Arizona

BY FRANK STEPHENS

(Concluded)

**Megascops asio cineraceus.** Mexican Screech Owl. A male bird shot in the dusk of the evening of August 15th, twenty-five miles below Ehrenberg, on the California side of the Colorado, was identified by Mr. Ridgway as *M. a. cineraceus*. This is probably the form found along the Colorado. I heard screech owls in several places along the river. At about 5000 feet altitude, in the Providence Mountains, I flushed a *Megascops* from a thick pinyon tree growing in a narrow gulch but was unable to find it again; it was probably *bendirei*. In the Hualapai

Mountains I heard some small owl, probably a *Glaucidium*, several nights, but was unable to locate it in the pines.

***Micropallas whitneyi*.** Elf Owl. Above the Needles, on the Arizona side I heard a small owl that may have been this species, but was unable to get a shot at it. This was about twenty miles below Dr. Cooper's type locality. He stated that he obtained but one specimen. It is probable that elf owls straggle to the Colorado River in the spring migrations. I looked carefully along the Colorado at all places visited but found no other evidence of its occurrence there. On Big Sandy Creek, above Signal, we secured three elf owls, finding them by their notes and calls, and shooting them with light charges when seen dimly in trees or bushes in the starlight. Others were heard. The favorite breeding places are old woodpecker holes in giant cactuses. I opened a number of these holes in July, but the only positive evidence that I found of their using the cavities was the finding of two dried carcasses of nearly grown young owls.

***Geococcyx californianus*.** Roadrunner. We saw but few roadrunners and these were mostly near the Colorado River.

***Coccyzus americanus occidentalis*.** Californian Cuckoo. Saw one near The Needles and heard others there about the middle of June, and a month later saw and heard others at Big Sandy Creek.

***Dryobates villosus hyloscopus*.** Cabanis Woodpecker. Hualapai Mountains. Not common.

***Dryobates scalaris bairdi*.** Baird Woodpecker. Rather common over most of the route traveled in Arizona except in the Hualapai Mountains.

***Melanerpes formicivorus*.** Ant-eating Woodpecker. I saw several of these woodpeckers, apparently a family, on the Hualapai Mountains, between 6000 and 7000 feet altitude.

***Melanerpes uropygialis*.** Gila Woodpecker. More or less common in the timber along the Colorado and Big Sandy Creek.

***Colaptes cafer collaris*.** Red-shafted Flicker. Seen on the Hualapai Mts. and near Ehrenberg in the Colorado River bottoms. Not common at either locality.

***Colaptes chrysoides*.** Gilded Flicker. Seen only near Big Sandy Creek, where they were rather common. Some were seen feeding on the fruits of the giant cactuses on the mesa, but they principally frequented the willow thickets near the stream. No woodpeckers were seen on the Providence Mountains, though this range is fairly well timbered, and seemingly well adapted for their homes.

***Phalænoptilus nuttalli*.** Nuttall Poorwill. Heard in nearly every locality where collections were made. Two shot at Big Sandy Creek and one at Bill Williams River.

***Chordeiles virginianus henryi*.** Western Nighthawk. Seen only on the Hualapai Mountains where they were rather common.

***Chordeiles acutipennis texensis*.** Texan Nighthawk. More or less common along most of the route traveled, except on the higher mountains and barren deserts.

***Aeronautes melanoleucus*.** White-throated Swift. Rather common on the Providence Mountains and Hualapai Mountains. I saw a few near Ehrenberg.

***Trochilus alexandri*.** Black-chinned Hummingbird. Two young of the year were on the wing at Twenty-nine Palms, May 18.

***Calypte costæ*.** Costa Hummingbird. Noted at Providence Mountains, Little Meadows and Beale Spring, but they were not common.

***Selasphorus platycercus*.** Broad-tailed Hummingbird. I saw several females

or immature males in the Hualapai Mountains, which from their large size I suppose to be of this species.

**Tyrannus verticalis.** Arkansas Kingbird. Seen at Twenty-nine Palms, Needles, Little Meadows, Beale Spring, Big Sandy Creek, Bill Williams River and Ehrenberg. They were rather common at most of these places.

**Tyrannus vociferans.** Cassin Kingbird. Saw one at the base of Providence Mountains and several in the Hualapai Mountains, mostly above 6,000 feet altitude.

**Myiarchus mexicanus magister.** Arizona Crested Flycatches. Seen only among the giant cactuses at Big Sandy Creek, where a set of four eggs was taken from an old woodpecker's hole in a giant cactus, July 20.

**Myiarchus cinerascens.** Ash-throated Flycatcher. None seen in the higher parts of the mountains but generally distributed elsewhere, as I saw the species in the foothills, valleys, plains, and even in the deserts where were growing occasional mesquite or other shrubs. They were usually seen singly.

**Sayornis saya.** Say Flycatcher. Seen at Providence Mountains, Needles, Beale Spring, Big Sandy Creek and Ehrenberg, but they were not common at any of these places.

**Sayornis nigricans semiatra.** Western Black Phoebe. Not common. Seen only along Big Sandy Creek, Bill Williams River, and Colorado River.

**Contopus richardsoni.** Western Wood Pewee. Seen at Twenty-nine Palms as migrants, and at Providence Mountains where they were rather common and apparently resident.

**Empidonax difficilis.** Western Flycatcher. Hualapai Mountains, rare; Bill Williams River, one migrant, the last of July.

**Pyrocephalus rubineus mexicanus.** Vermilion Flycatcher. Big Sandy Creek, rather common; Bill Williams River; Colorado Valley near Ehrenberg, not common, as the southward movement had commenced before I got there in August. A farmer in the new settlement of Cibolo, twenty five miles below Ehrenberg, told me he had brought in a swarm of bees to start an apiary, and that these flycatchers had eaten so many of the bees that the swarm died out.

**Otocoris alpestris ammophila.** Mohave Horned Lark. Occasionally seen along the Santa Fe R. R. in the eastern part of the Mohave Desert.

**Cyanocitta stelleri diademata.** Long-crested Jay. I shot one in the Hualapai Mountains, but saw no others.

**Aphelocoma woodhousei.** Woodhouse Jay. I saw several jays on the Providence Mountains that I believe were of this species, but they were very wild and on such rugged mountain sides that I was unable to get any. I saw a few on the Hualapai Mountains. These were mostly immature birds.

**Corvus corax sinuatus.** American Raven. Seen occasionally throughout the region traversed.

**Molothrus ater.** Cowbird. Generally distributed.

**Xanthocephalus xanthocephalus.** Yellow-headed Blackbird. Seen migrating at Twenty-nine Palms, and at Big Sandy Creek, Bill Williams River, and at Ehrenberg.

**Agelaius phoeniceus neutralis.** San Diego Redwing. Saw a few redwings at Big Sandy Creek and near Ehrenberg.

**Icterus parisorum.** Scott Oriole. I saw and heard quite a number of these orioles on Providence Mountains, where they were undoubtedly breeding. They were also common at Beale Spring in July, where they were feeding on figs and peaches in the orchard.

**Icterus cucullatus nelsoni.** Arizona Hooded Oriole. Rather common at Big Sandy Creek and Bill Williams River; not noted elsewhere.

**Icterus bullocki.** Bullock Oriole. Not common. Young seen out of the nest at Needles the middle of June. Seen at Big Sandy Creek, Bill Williams River and along the Colorado near Ehrenberg.

**Carpodacus mexicanus frontalis.** House Finch. More or less common everywhere. Very destructive to fruit in the orchard at Beale Spring.

**Astragalinus psaltria.** Arkansas Goldfinch. Found only at Big Sandy Creek, where they were not common.

**Chondestes grammacus strigatus.** Western Lark Sparrow. Saw one at Cibola, Arizona.

**Zonotrichia leucophrys.** White-crowned Sparrow. Saw migrants in Morongo Pass and at Twenty-nine Palms.

**Spizella atrogularis.** Black-chinned Sparrow. Saw a female carrying a larva of some kind in her bill, on Providence Mountains, about June first. She came quite close to me and acted as if her family were near. A month later I saw several at about the same altitude (6000 feet) on the Hualapai Mountains. These appeared to be parents and young of the year.

**Junco oreganus thurberi.** Thurber Junco. Providence Mountains, rare. No juncos were seen elsewhere. I looked carefully in the Hualapai Mountains, but found none and am at a loss to understand why none of the genus occurred there, as I had expected to find *caniceps* or *dorsalis*.

**Amphispiza bilineata deserticola.** Desert Sparrow. Rather common at base of Providence Mountains. Seen at Little Meadows, Beale Spring and Big Sandy Creek.

**Melospiza cinerea fallax.** Desert Song Sparrow. A few were seen near Needles, also along Big Sandy Creek, and about lagoons near Ehrenberg.

**Pipilo maculatus megalonyx.** Spurred Towhee. Common on the Hualapai Mountains.

**Pipilo fuscus mesoleucus.** Canyon Towhee. A few were seen in rocky gulches and rough hills at Little Meadows and Beale Spring.

**Pipilo fuscus senicula.** Anthony Towhee. Seen in Morongo Pass on the way out.

**Pipilo aberti.** Abert Towhee. Rather common in the bottom lands of the Colorado River and its tributaries, to which this species is strictly limited.

**Oreospiza chlorura.** Green-tailed Towhee. The only one noted I saw at about 6000 feet altitude in Providence Mountains

**Zamelodia melanocephala.** Black-headed Grosbeak. I saw a number of females, apparently migrants, in the Providence Mountains at 5000 to 6000 feet altitude, but I saw no males in that range. At Beale Spring both sexes were common and destroying quantities of fruit, to the great annoyance of the owner of the orchard, who employed an Indian to shoot the birds. Unfortunately the Indian did not discriminate between the noxious and harmless species. I saw a few of these grosbeaks on the Hualapai Mountains and one male at Big Sandy Creek.

**Guiraca caerulea lazula.** Western Blue Grosbeak. Seen at various places along the Colorado River and at Big Sandy Creek.

**Cyanospiza amœna.** Lazuli Bunting. Seen only near Needles and Ehrenberg.

**Piranga ludoviciana.** Western Tanager. Soon after our arrival at Twenty-nine Palms, May 17, a male of this species came to the little pond at camp and drank. It appeared exhausted. Next day it was very tame, keeping in the lee



of some bushes where we all were trying to get out of the prevailing sandstorm. He caught flies on the wing, and alighted on our shoulders several times, almost permitting us to handle him. A few Louisiana tanagers were seen on the Providence Mountains. The last days of July several came into a vineyard on Bill Williams River and other migrants were seen later along the Colorado River.

**Piranga hepatica.** Hepatic Tanager. A male shot July 8, at 6300 altitude on the Hualapai Mountains was the only one seen. As is usual with this species, it was in pines.

**Piranga rubra cooperi.** Cooper Tanager. The two white men living at Twenty-nine Palms described a bird closely which must have been of this species; they said it was the only one they had ever seen, and that it appeared a fortnight previously and remained in the shrubbery around their cabins a week. It had probably wandered from its usual haunts in the willow groves of the Colorado River bottoms. August 14 I shot a male Cooper tanager twenty-five miles below Ehrenberg on the California side of the river. This was the only individual I saw on the trip.

**Petrochelidon lunifrons.** Cliff Swallow. Seen occasionally at Big Sandy Creek, Bill Williams River and about the Colorado near Ehrenberg. A few old nests were plastered along the nearly perpendicular cliffs of the Bill Williams River canyon.

**Hirundo erythrogastra.** Barn Swallow. Noted only at Twenty-nine Palms, where several individuals appeared to be summer residents.

**Tachycineta lepida.** Northern Violet-green Swallow. Rather common about the summits of Providence Mountains, probably residents. I saw two flocks along Big Sandy Creek, July 17, migrating, and another flock at Parker on the Colorado River a fortnight later.

**Phainopepla nitens.** Phainopepla. Seen at base of Providence Mountains, Needles, Beale Spring, Big Sandy Creek and Ehrenberg, usually in small numbers.

**Lanius ludovicianus excubitorides.** White-rumped Shrike. Seen in most of the localities visited, but not at all common.

**Vireo gilvus swainsoni.** Western Warbling Vireo. Heard in the Providence Mountains. Not noted elsewhere.

**Vireo solitarius cassinii.** Cassin Vireo. Providence Mountains, 5000 to 6000 feet altitude; not common.

**Vireo solitarius plumbeus.** Plumbeus Vireo. Rather common in the pinyon belt at base of the Hualapai Mountains. Not heard above 6000 feet altitude.

**Vireo pusillus.** Least Vireo. Seen and heard at various places along the Colorado River and at Big Sandy Creek. I thought I heard *Vireo vicinior* on Providence Mountains, but as I could not see it I may have been mistaken, its song being very similar to that of *cassinii*, which was present a little higher up the mountains.

**Helminthophila luciae.** Lucy Warbler. First seen at Little Meadows, where I shot the male parent and one of the brood of young June 21. This was about fifteen miles east of Fort Mohave, where Dr. Cooper obtained the types. I failed to find the species along the Colorado River. Two more males were shot in July at Big Sandy Creek where the species was rare. Not observed elsewhere.

**Helminthophila virginiae.** Virginia Warbler. Shot one on the Hualapai Mountains. Two or three more were seen there. Not observed elsewhere.

**Helminthophila celata lutescens.** Lutescent Warbler. Seen migrating at Twenty-nine Palms May 17.

**Dendroica æstiva.** Yellow Warbler. Migrants, mostly immature, were seen at Big Sandy Creek the latter part of July.

**Dendroica nigrescens.** Black-throated Gray Warbler. Rather common in the higher parts of the Providence Mountains in June.

**Icteria virens longicauda.** Long-tailed Chat. Found only in willow thickets in the lower valleys, such as that of the Colorado River and Big Sandy Creek. Noisy, as usual, in summer.

**Wilsonia pusilla pileolata.** Pileolated Warbler. Seen migrating northward at Twenty-nine Palms, May 17, and below Ehrenberg, going southward in August.

**Mimus polyglottos leucopterus.** Western Mockingbird. I observed one at base of Providence Mountains, one at lower edge of the pine belt in Hualapai Mountains, two at Big Sandy Creek and several near Ehrenberg.

**Toxostoma curvirostre palmeri.** Palmer Thrasher. Big Sandy Creek, rare.

**Toxostoma bendirei.** Bendire Thrasher. Two shot at Beale Spring were the only ones observed.

**Toxostoma lecontei.** Leconte Thrasher. Seen at Twenty-nine Palms; one shot at Danby (a small station on the Santa Fe R. R., in the Mohave Desert); two young of the year shot at base of Providence Mountains.

**Toxostoma crissale.** Crissal Thrasher. Seen at a number of places, including The Needles, Little Meadows, Beale Spring, Big Sandy Creek, Bill Williams River and Hualapai Mountains. The latter was in a location totally unlike any in which I have previously seen this species, being in the lower edge of the pine belt, as an immature bird was shot at 6000 feet altitude, July 8, and a new nest was found in the pinyon and juniper belt a few days previously.

**Heleodytes brunneicapillus anthonyi.** Desert Cactus Wren. Seen in Morongo Pass; shot at base of Providence Mountains; brood of young seen at Little Meadows; also seen at Beale Spring, Big Sandy Creek and near Ehrenberg. Not common at any of these places.

**Salpinctes obsoletus.** Rock Wren. Heard on Providence Mountains; a family seen below Beale Spring the latter part of June; rather common on Hualapai Mountains.

**Catherpes mexicanus conspersus.** Canyon Wren. Providence Mountains and Hualapai Mountains; not common.

**Thryomanes bewicki leucogaster.** Baird Wren. Found only at Big Sandy Creek, where two moulting birds were shot about July 20.

**Troglodytes aedon aztecus.** Western House Wren. Seen only on the lower part of the Hualapai Mountains.

**Sitta pygmæa.** Pygmy Nuthatch. Rather common in the pine forests of the Hualapai Mountains.

**Parus inornatus ridwayi.** Gray Titmouse. I saw two in the Providence Mountains.

**Psaltiriparus plumbeus.** Lead-colored Bush-tit. I saw a small flock in the Providence Mountains at 6300 feet altitude; they were rather common in the Hualapai Mountains up to 6500 feet altitude.

**Auriparus flaviceps.** Verdin. Rather common at most localities visited except in the mountains.

**Poliophtila cærulea obscura.** Western Gnatcatcher. Seen in the Providence and Hualapai Mountains, but not common in either range.

**Poliophtila plumbea.** Plumbeous Gnatcatcher. Little Meadows, several seen; Beale Spring, rather common; Big Sandy Creek, rare; Bill Williams River, rare; Ehrenberg, occasional.

**Sialia mexicana bairdi.** Chestnut-backed Bluebird. Several seen, including spotted young, near summit of Hualapai Mountains.

## Stray Notes From Southern Arizona

BY F. H. FOWLER

(Second Paper<sup>a</sup>)

**E**LF OWL. The smallest, as well as one of the most interesting of all our owls, is about the commonest of the family in southern Arizona. Its favorite nesting-place is the sahuara cactus and so "familiarity breeds contempt" only in the few cases where it abandons its beloved cactus and nests in a sycamore, cotton-wood, mesquite, or other tree.

The only nest I found I came upon by accident. For some time I had kept watch of a pair of ant-eating woodpeckers that were excavating a nesting site in a sycamore stub, and at last when I judged there ought to be a full nest of eggs, I went out to secure it, armed with a ladder, saw, and sledge hammer. The hole was about thirty feet from the ground, and was easily reached by a man sent up the ladder, who, after sawing the stub half off, knocked away the top with the sledge. No sooner had he taken a peep into the shallow cup that remained, than he snatched off his hat and crammed it into the opening, shouting to my father at the same time, "Captain, here's one of them air little owls." And after another look, "She has three eggs, too!" The eggs and birds were soon safe in our hands, and the former are now among the most prized specimens of my collection. The parent was a very close sitter, and made no attempt to leave the eggs, even struggling to remain on them.

About this time another of the species which was found sitting in the lower branches of a live oak, in a canyon a few miles south of the post, was collected by Dr. A. K. Fisher. So small is this owl that my father, who first saw it, called to the Doctor, "Say, here is a little owl about an inch and a half long," and he was very much surprised at the greater size of the bird, when he got a chance to examine it.

At Fort Bowie, on October 5, 1893, the bartender in the sutler's store caught the only one I noted at that place.

Capt. Bendire found them breeding commonly in the sahuaras near Tucson, and says in his paper on this species, in the first volume of his work, that, although they probably breed wherever found, the only eggs obtained (up to that time) had been collected at, or near that place.

**ARIZONA WOODPECKER.** The Arizona woodpecker (*Dryobates arizonæ*) is, outside of the alpine three-toed and pileated, the most interesting member of the woodpecker family, that I have ever seen. So far as I have noted, the species is never common, never noisy, and never at rest. I have not found it except in live-oak woods, and at Fort Huachuca; on a good field day I used to see about six on an average. Not even the chickadees are as active as this little woodpecker. He will alight on the main trunk of the tree, or generally on one of the largest limbs, and the moment his claws are fastened in the bark he begins an untiring search for insects and grubs. He ascends rapidly in spirals picking and prying away small pieces of bark in search of food; when a promising limb is reached out he goes on it, often on the lower side. The search over in one tree, he wastes no time in looking around, but launches out, with barely a glance to determine the course, in his undulating flight to the next, there to repeat the performance. When closely approached, he works around the tree without paying any especial attention to the intruder, and when thoroughly frightened he will take flight with

<sup>a</sup> For explanatory introduction to these notes see THE CONDOR, V, p. 68. - F.D.

as little warning as he does when simply in search of food. While going up the tree he gives, from time to time, a characteristic call, much like that of the hairy woodpecker.

Although I never saw the nest of the bird, one was found by Dr. Fisher, in a maple, about twenty feet from the ground, which contained naked young on May 14. A nest containing young was found in the Chiricahua Mountains by Mr. W. W. Price, in 1893. As far as I know, these birds were found only in the live-oaks of the western and southern slopes of these mountains.

**RIVOLI HUMMINGBIRD** (*Eugenes fulgens*). Early one bright, sunny morning in the first part of September, 1892, while waiting for breakfast, I chanced to take a stroll through our garden, which at that time was one of the most beautiful in the post of Fort Huachuca. The diminutive rufous hummers were out in great force, it seemed to me, more for the purpose of fighting than feeding. While watching the antics of these birds, my attention was attracted by a monster hummingbird that flitted over the house, without any apparent effort, and began to feed among some scarlet geraniums in a large flower-bed. All I knew when I made a rush for the house, was that right there in our garden, was something very rare in the bird line. When I got back with my gun the bird had left, but was soon found on the other side of the house, where, after a few unsuccessful attempts, I finally shot it, and I do not know that even the trogon, of which I have spoken, pleased me as much as did this fine hummer, with his black iridescent breast, showing green in some lights, the bright emerald gorget, and forehead of rich violet blue.

Its motions were unlike any other hummer I have ever seen as its wings did not hum in the manner that has given this family its name, but cut the air with strong, firm, wing beats. Its flight was erratic, like that of the hummingbird moth, and at times like that of a bat. It would even soar, or sail for a few feet. It was not very shy, but when it made up its mind to go it would flit away on an erratic course without the slightest warning.

I saw this hummer next at Rucker's Canyon, in the lower end of the Chiricahua Mts. in the last part of May '94, where, as we sat skinning some specimens, a fine male darted by, hovered a moment over some flowers, and then disappeared up the canyon.

When Dr. Fisher and myself reached Fly Park, in the Chiricahuas the first week of June, 1894, we found this, as well as the blue-throated hummer, common. They had evidently just come up from Mexico on their spring migration, and had not as yet spread through the deep canyons where they breed. Here we found them at their best, the males continually fighting, though not so fiercely as the smaller species, or displaying their brilliant colors to enemies, and admirers, from some sunny twig. As far as my observations went, I remember only males, and no females, but Dr. Fisher obtained one or more females.

**WHITE-EARED HUMMINGBIRD.** The history of the white-eared hummer (*Basilinna leucotis*) within our border is very short, and it is to be hoped that further notes on this species (which was recorded for the first time in the United States in 1894) can be obtained soon.

On the morning of June 9, 1894, Dr. Fisher and myself started from our camp at Fly Park for a hunt. We had not gone fifty yards from the tent, when the Doctor saw, perched on a twig, a hummer which had a decidedly white patch behind its eye. He called my attention to the peculiarity, and then shot the specimen. In the hand the white patch was very noticeable, and he thought it was an immature specimen of the Circe hummer, but it has since been identified as the white-eared hummingbird, a straggler from Mexico. Another specimen has since been secured in the Huachuclas, I believe, by Mr. Lusk.

**Joint Meeting of the American Ornithologists' Union and the Cooper Ornithological Club of California**

THE combined forces of the American Ornithologists' Union and the Cooper Ornithological Club assembled at the California Academy of Sciences, San Francisco, May 15 and 16. The members of the A. O. U. and their friends, about forty strong, had just completed an enjoyable trip from the east via the Santa Fé route, upon which stops were made at Santa Fé, Adamana and the petrified forest, Grand Canyon, Hesperia in the Mohave Desert, Riverside, and Los Angeles. At Los Angeles a reception was tendered by members of the Southern Division of the Cooper Club.

The meetings were held in the Lecture Hall of the Academy and the first session was called on Friday, the 15th, at 11 o'clock, by Dr. C. Hart Merriam, Charles R. Keyes acting as secretary. Subsequent sessions were held on the afternoon and evening of the same day, and on the following morning. An elaborate luncheon was provided on both days, by the members of the Academy, at the Poodle Dog, where good cheer was dispensed with a lavish hand. To the kindly hospitality of the Academy in large part was due the success of the meeting.

During the first session Mr. Joseph Grinnell read a valuable paper on the 'Origin and Distribution of the Chestnut-backed Chickadee,' which was followed by remarks by Dr. Merriam. Mr. Leverett Mills Loomis then read 'Recognition of Geographic Variation in Nomenclature,' in which he took issue against the present-day tendencies towards trinomial profundity. This suggestive essay was discussed by Mr. Chapman and Drs. Merriam and Dwight.

During the afternoon session Mr. Walter K. Fisher exhibited a set of slides illustrating 'An Island Community, or Bird-life on Laysan.' Laysan is a little coral islet situated about 800 miles west-northwest of Honolulu, and harbors a considerable variety of sea-fowl and a few land birds, all the latter being peculiar to the island. Mr. Donald A. Cohen read an interesting paper, 'Some Observations on the Prairie Falcon' which was followed by a talk by Mr. Joseph Mailliard, 'Notes on the Birds of Chili,' in which the difficulties of a collector in that country were vividly portrayed. Mr. Joseph Grinnell read a short paper on 'Call Notes of the Bush-tit,' followed by 'Remarks on the A. O. U. journey across the Continent,' by Mr. Louis A. Fuertes.

During the evening session Mr. Frank M. Chapman gave a most entertaining lecture on 'The Bird Islands of our Atlantic Coast' illustrated with beautifully colored lantern slides. Mr. Chapman commenced with the bird community on Percé Rock in the Gulf of St. Lawrence and sketched the principal bird islands of the coast, finishing with a remarkable flamingo colony in the Bahamas. Mr. W. Otto Emerson then took the meeting to 'The Farallon Islands,' in an illustrated talk showing many views of these celebrated bird rocks off our California coast.

The Saturday morning session was occupied largely by Mr. Wm. L. Finley's 'Oregon Birds Caught with a Camera,' illustrated with superb lantern slides, from photographs taken by Messrs. Bohlman and Finley. In point of interest and value this set has never been surpassed. Especially noteworthy were the series of life-history views, detailing various stages in the growth of young birds, and the domestic duties of many of our western species. Mr. Fuertes, by request, then entertained the meeting by imitating the songs and calls of a number of eastern birds. The following papers were read by title: 'The Cassin Auklet,' Howard Robertson; 'Notes on the Bird Conditions of Fresno District,' J. M. Miller; 'Do Valley Quail Use Sentinels?' Jno. J. Williams.

The A. O. U. then passed resolutions thanking the Cooper Club, the Academy of Sciences and the Committee on Arrangements, after which the meeting adjourned. In a special meeting the Cooper Club passed resolutions of thanks to the Academy and Mr. Loomis, for the generous entertainment extended to members of the Club.

After luncheon, on the invitation of President Jordan, the meeting visited Stanford University in a body.

The following members of the A. O. U. from the east were in attendance; J. A. Allen, F. E. L. Beal, Louis B. Bishop, H. C. Bumpus, F. M. Chapman, J. L. Childs, Mrs. E. B. Davenport, J. Dwight, Jr., J. H. Fleming, Louis A. Fuertes, C. Hart Merriam, T. S. Palmer, Otto Widmann. Of the Cooper Club there were thirty-three members present.



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## THE CONDOR

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WALTER K. FISHER, Editor, Palo Alto  
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### Minutes of Club Meetings

#### NORTHERN DIVISION

MARCH.—The regular meeting of the Northern Division was held with President H. R. Taylor at Alameda, March 7, thirteen active members and four visitors being present. Mr. Cohen reported a gift to the Club of four cases of mounted birds from Mr. A. M. Shields. On motion a vote of thanks was extended to Mr. Shields.

The following were elected to active membership in the Club: S. B. Show, Stanford University; Lloyd Newland, Palo Alto; Theo. C. Zschokke, Palo Alto. Seven applications for active membership were received, from A. S. Bunnell, Berkeley; Margaret Day, Santa Barbara; Edmund M. Hayden, Santa Barbara; Dr. H. N. Miner, Berkeley; J. C. Bay, Hayward; Earl Mulliken, Berkeley; Jessie L. Newsom, Oakland.

Four resignations were accepted, as follows: N. M. Flower, F. W. Kobbe, Harry Putnam, Miss M. E. Skillings. The name of Mr. J. L. Young was dropped for non-payment of dues.

It was moved and carried that the Cooper Club celebrate its tenth anniversary in connection with the special meeting of the A. O. U. in San Francisco, May 15 and 16. Mr. Joseph Grinnell presented the following amendment to the Constitution, which was unanimously adopted, subject to the action of the Southern Division:

Article III, Section 2. "Any person seriously interested in the study of Western birds and of not less than sixteen years of age shall be eligible to active membership."

The program was carried out as follows: "General Habits of the Prairie Falcon," Don-

ald A. Cohen; "Bird Trapping Among the Pomo Indians," S. A. Barrett; "A Remarkable Flight of Louisiana Tanager," W. Otto Emerson. After refreshments and a social time the meeting adjourned.

C. R. KEYES, Secretary.

#### SOUTHERN DIVISION

FEBRUARY.—The February meeting was held on the 28th in room 1, City Hall, Los Angeles, with Mr. Daggett presiding and nine members present. A committee consisting of Howard Robertson (chairman), Eugene Law, F. S. Daggett and H. J. Lelande was appointed, after due motion, to prepare a revision of Grinnell's Birds of the Pacific Slope of Los Angeles and Orange Counties.

The Club was honored by the presence of Prof. F. E. L. Beal, of the Biological Survey, who gave a short talk on the work accomplished by the department in the examination of the stomachs of about 50,000 birds, during the past few years, of the valuable data collected, and the various beneficial results to be derived.

Mr. Walter Richardson, who recently returned from South Africa, after an absence of about five years, gave a very entertaining account of his travels, with a description of the country, birds and mammals that were observed.

"Early Nesting of Anna Hummingbird in the Vicinity of Santa Monica" by W. Lee Chambers was read. Mr. Daggett read notes from a letter written by Joseph Mailliard, who has been collecting in Chile. Mr. Robertson read a very interesting account of a trip to our coast islands, entitled "A Day with Cassin Auklets."

H. J. LELANDE, Secretary.

MARCH.—The March meeting, which was postponed from the 31st ult., was held on April 11th, in room 1, City Hall, Los Angeles, with M. Daggett presiding and seven members present. The amendment to Article III, Sec. 2, of the Constitution was carried. (See minutes of Northern Division.) The secretary was instructed to communicate with Mr. John H. Sage, Secretary of the A. O. U., in order to obtain information concerning the plans of the A. O. U. party coming to California in May. A committee of three, including the president, secretary, and Mr. Howard Robertson, were appointed to devise a plan of entertainment for visiting members of the A. O. U. The name of Mr. Harry Swarth was added to the revision committee appointed last month. The Club adjourned to meet again April 30, at the residence of Mr. W. B. Judson, Los Angeles.

H. J. LELANDE, Secretary.



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# THE **C**ONDOR

A Magazine of Western  
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Volume V

September-October, 1903

Number 5



COOPER ORNITHOLOGICAL CLUB



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# THE CONDOR A MAGAZINE OF WESTERN ORNITHOLOGY.



Volume V

September-October, 1903

Number 5

## With the Mearns Quail in Southwestern Texas

BY LOUIS AGASSIZ FUERTES



IF all the bizarre and curious creatures that live in our county, it would be hard to find one more arbitrarily marked, or colored more apparently in opposition to all the laws of protective gradation and coloration than the Mearns quail, or as has been longer known, the Massena partridge or "Fool Quail." It is especially noticeable in this case since the other genera in the family are among the most remarkable exponents of the perfection of 'locality painting,' being dark above, where the most light strikes them, and pale below, where the shadow comes, thus making a monotinted ground upon which the most exquisite detail of scenery is painted. This assists the creature to be assimilated into its natural setting to a degree which only those who have come face to face with a sitting grouse or quail can truly appreciate. Therefore, when we see the fantastic little cock Massena with his dark chestnut breast, jet black belly and flanks, and harlequin-painted head, it is hard to conceive how he was ever able to qualify in the race for survival among a group of birds so marvellously protected as his congeners.

With the prospect of a field trip into the "Big Bend Country" in western Texas, I looked forward with the keenest pleasure to meeting the Mearns quail (*Cyrtonyx montezumæ mearnsi*) for I felt sure that he would, in some ingenious way, justify his bold deviation from his family's stock traits. The accounts I had heard of his stupid tameness made me wonder the more, for it is a fairly good rule that those birds most beautifully assimilable in their natural landscape, rely on their inconspicuousness the most, and those, which do not thus hide in 'full view' take flight or run on the apprehension of danger. Here seemed to be a strong contradiction, which I hoped to solve.

Our first invasion into his territory was in the Chisos mountains, at the extreme reach of the "Big Bend" of the Rio Grande. After a long hot ride, we finally ascended the foot-slopes at about sunset, and worked into a dwindling trail which finally became lost in an old arroyo, coming down from a great gulch in the mountains. We camped at last by a 'well' that one of our number discovered in the brush about fifty yards from the trail, and tired and hungry almost to oblivion, we ate our bacon, beans, and biscuit, and rolled up in our blankets in the beautiful glow of the full moon.

I awoke in the cool, just before sun-up, and was lazily dressing, half out of my sleeping-bag, when my sleepy eye caught a slight motion in the grass about twenty feet away. I looked and became aware that I was staring at my first Mearns quail. Even as I took in the fact, he apparently framed up his ideas as to *his* vision, and telling himself in a quiet little quail-voice that it were perhaps as well to move on and look from a safer distance, he slimmed down his trim little form and ran a few steps. Meanwhile I was clumsily trying to get my gun out from under my sleeping bag, where I had put it to keep it out of the dew. The quail, getting wiser every second, doubled his trot, and with head erect and body trim ran like a plover for a few yards through the short desert grass, and with a true quail *f-r-r-r-r-r-r-r-r-r* burst into flight and dropped into the thick brush across the arroyo. The most noticeable thing about him as I watched him running was the curious use of his queer little crest. Instead of elevating it as the mountain quail does his, he raised his painted head on slim neck and spread his flowing crest *laterally*, till it looked like half a mushroom, giving him the most curious appearance imaginable. When he flew I marked him down carefully, hastily drew my boots half on, grabbed my gun and stumped after him with all speed. I got to his point within a short time, but thrash and kick around as I might, I never succeeded in making him flush a second time. Thus ended the first chance.

Later, when we had reached the foot of the gulch and made camp under a noble old pinyon, we had opportunity to learn more about the quail, tho we never had such a good view as that first one. A curious, quavering, owl-like cry attracted our novelty-seeking ears. A pigmy owl perhaps? Tho frequently heard in the scrubby oaks at the edge of the woods, or even *in* the woods, it proved a true will-o-the-wisp, and invariably led us out into the basting-hot brush on the hillside, among the cacti and slide-rock. At first we approached it cautiously, or carefully tried to 'round it up' by going to either side of it. But it always eluded us, and we had only our guesses to tell what it was. We were beginning to guess right, however, and one lucid day I decided to waste no more time. So the next time the sad little cry sounded, off I went toward it as fast as possible, until I thought I was near the place. Then I stopped and listened. Again! Only waiting long enough to ascertain that the sound came from a particularly dense bunch of *Dasylerion*, cactus and other desert brush, I jumped in and made for the place, never heeding the noise I was making. On, to the point, and right on, when *frrrrrrrrrr*, out boiled a cock Massena, and *frrrrrrrrrr*, out went the hen after him at another angle. I was nearly ready, but not quite, and by the time I was 'on' him he had dropped, woodcock-like, after a flight of only a rod or two. So, also, had the hen. So there were no quail for me this time, as I was unable to flush them again. But I had "found a wy," and knew that some day I'd make it succeed. Later I had the pleasure of seeing a beautiful cock, shot by one of the others, and the next day the strange pinkish hen was brought in. With a wider knowledge of the bird's ways and the kind of cover he preferred, his curious markings seemed less of a contradiction. Many partridges have black or very dark ventral patches which



they obviate by squatting: the Gambel partridge, chestnut-bellied scaled quail, the European partridge and others; and Mearns quail has this same thing only to a greater extent. He chooses the densest and deepest brush cover for a retreat, and like the meadowlark keeps his wonderfully graded back toward the danger-side. The illustration<sup>a</sup> from Mr. Bailey's photograph shows how easily he becomes inconspicuous by this simple trick, and it is fair to attribute his black ventral markings to other causes than that of direct protection when offset by the facts of his chosen cover and the remarkably protective character of his upper parts. And like many other sharply marked creatures, the very contrasts which look so conspicuous when seen in the hand, isolated from the sharp lights and shadows of the natural environment, serve to so 'cut up' the creature that in nature all semblance of a bird is lost; the head is cut from the body, and then reduced to a non-committal jumble, which is one with what lies beyond.

In the gulch near where we were camped was a lovely little mountain brook, coming from a seep-basin high in the mountains, tumbling as a thread-like fall from a tall cliff at the head of the gulch, a mile above camp. In the canyon were noble jack oaks, gnarly arbutus trees, and a few nut-studded pines, and upon the steep talus slope stood a splendid grove of tall conifers. This place was naturally the center of bird life, and here we found for the first time within our borders the Couch jay (*Aphelocoma sieberi couchi*). Stephens whip-poor-wills (*Antrostomus v. macromystax*), and band-tailed pigeons (*Columba fasciata*) were here, and numbers of 'carpinteros,' the noisy and sociable ant-eating woodpeckers (*Melanerpes formicivorus*). Occasionally a big blue-throated hummer (*Caligena clemenciae*) would come skittling up the gulch, for all the world like a little swift, uttering his sharp little squeak every two seconds. Perhaps he would alight on the dead lower twigs of a drooping pine branch, and jumble his squeaks together into a kind of little song: more likely he would zip by like a bullet and disappear up the gulch. These and many other rare and interesting birds made me temporarily neglect the quail, after a few more failures, and I left the Chisos without a single bird.

But my hope was yet young, and as we moved up toward the Davis mountains I had visions of a brace. These, like the first, failed to materialize, as did those which I harbored for the Sacramento in New Mexico.

Late in the summer we left Carlsbad, New Mexico, with our outfit, heading for the Guadalupe mountains, the "Walloopias" of the natives, for our last mountain work of the season. Up we went from the Pecos desert into the juniper-clad foot-hills, where we camped our first night. In the morning I looked around, and was surprised at what I saw. Indeed, I rubbed my eyes to see if I



MEARNS QUAIL  
FROM A DRAWING BY THE AUTHOR

<sup>a</sup>. For the use of this and the photograph of the Chisos Mts. acknowledgements are due to Mr. Vernon Bailey, and the Biological Survey.—ED.



were seeing aright. *Goats in trees!* Yes, it was all right, and there in the sprawling junipers, feeding or resting, were numbers of white Angora goats, the chief product of the country, as comfortably at home as cats! We soon left the goat



CHISOS MOUNTAINS FROM BELOW ROCK SPRING

country, and went up through the bigger growth of the upper Transition Zone, and finally came down again into the semi-tropical atmosphere of 'Dog Canyon'. Up through this broad, waterless, sun-baked basin we worked, until sixty miles further up we came again into the junipers and yellow pines. Oak-covered hills rose at our sides and ahead of us, ending in barren rock ridges fifteen hundred or two thousand feet above us. The high gulches were rich in timber but poor in surface water. This place was the last stand of the Mescalero Apaches, and their weed-grown mescal pits, arrowheads and bits of broken pottery gave evidence of their happy days as plainly as the corroded cartridges of the old Government "Henry .50's" that we found, attested to their final destruction. New things attracted us here, and our stay of four days was among the pleasantest of our summer's experiences. The gulches offered most of interest, so three of our days were spent in working between camp and the crests, 8500 feet above sea. But we had come into this camp in the late afternoon, and had had no opportunity to look over the hot basin.

So I decided, on our last afternoon, to make a good strong search of the lower levels, and started from camp at about two o'clock with a visitor who had "met up with us," and who said he would like to go out. We went 'down gulch,' and had hardly been out half an hour when we heard the old familiar seductive call: Mearns quail three points off the weather bow!

Well, soon after we put them up: my friend got one and I another. They were cock and hen, both well shot and in strangely good feather for the time of year. He was good enough to say he had shot his for me, and in less than an hour I was back at camp, happy as a king, painting *my* Mearns quail. Thus ended the last chance, for the next day before sun-up we broke camp and left the mountains for good.



MEARNS QUAIL, WHITE MTS., N. M.

## Some Observations on the Nesting Habits of the Prairie Falcon

BY DONALD A. COHEN

Read before the A. O. U.—Cooper Club Convention, May 16, 1903

THIS falcon, *Falco mexicanus*, is very rare in the San Francisco Bay region and in a radius of a day's journey about the adjacent territory. Nowhere does it appear to locate its eyry upon the rocky sea coast after the manner of the duck hawk (*Falco peregrinus anatum*), but prefers the low mountain ranges interspersed with plenty of canyons and rolling valleys. It is hardly necessary to mention that it is less plentiful than in bygone years, having fallen into line with many others of our fauna in their retreat from the encroachments of civilization. In June 1884 while visiting friends in the foothills of Mt. Diablo, Contra Costa county, I was one of a small party in quest of birds' eggs among the cliffs and rocks on the sage-covered slope of the mountain, and incidentally flushed a family of prairie falcons from one of the loftiest cliffs. There were five of them, the family of that year, that circled overhead at no great distance during our presence near the cliff. My host, who was present, said they were prairie falcons and said that Walter Bryant had gone over these rocky cliffs by means of ropes and taken their eggs, from time to time. In later years when I made Mr. Bryant's acquaintance he corroborated this. I first noticed the birds here in 1881 and have wondered for how many centuries the species nested in that spot. About the last set of eggs taken in this locality was, from memory, in 1889. It was of four eggs taken by a boy living near by and procured for me by my friend and exchanged to the late Chester Barlow. The nest was described as being placed on a ledge and lined with a few sticks and I believe, some grass, while all the prairie falcons and duck hawk sets I have ever taken, about twenty-five sets, were all in small caves or potholes, with a bed of sand or fine gravel and sand with a few bones of small mammals and birds. The birds were either killed off by the numerous campers that infest the region or worried into leaving for more secure quarters. The boulders and cliffs and even the top of the ridge is not so high but that rifle balls will go over from the road in the narrow valley below. Among one of my curios is a partly flattened bullet from a large calibre rifle that I picked up at the base of a boulder near the top of the ridge.

In this latitude, I may assume, the birds are constantly resident except for excursions during fall and winter when the young are probably in search of a home, as the old ones will not suffer their presence any longer, so I am told by a mountaineer. On two occasions I have noted single birds in Alameda. One attacked a band of half grown turkeys early in the fall and the other flew from an oak at some pigeons inside their enclosures and struck the wire netting with considerable force. Being well acquainted with the duck hawk in adult and juvenile plumages there is no mistaking a prairie falcon at close range.

The complement to a set of eggs is five and it is hardly possible to confound them with eggs of the duck hawk. As a rule those of the former are plainer and lighter colored, and in exceptional cases some are exquisitely blotched or mottled, being gems among gems. In the general run they lack the generous rich coloring of some of our duck hawk eggs but some of the best sets possess such a different style of beauty as to hold their own with any set of duck hawk I have ever seen. They average a trifle smaller although the superior size of the duck hawk over the prairie falcon is greater in proportion.

The observations on one pair of birds for a few years are limited to one day each year and during the short period of collecting the set, and owing to forced marches to and from the nest the time was necessarily short. It was in an amusing way that I became acquainted with the pair. Having formed the acquaintance of a miner, stockman and hunter in my home town during November 1897 talk gradually drifted into ornithology and falcons. He told me there was "a pair of those bullet hawks" nesting on his ranch and we made arrangements for my visit in the spring. The following April I set out on my wheel and by late afternoon had made a creditable run over the mountains and was suffering considerably from the intense heat. Water was hard to get owing to the drought having let the small streams run dry. Within a few miles of my destination was a small stock ranch and the proprietor, a young man, hailed me.

"Say! where are you going with that fish basket?"

"Fishing, of course!" I replied.

"Oh! that's played out. Do you know Harry Taylor?"

This was too interesting to pass so we adjourned to the cabin and talked things over with spring-water lemonade and big black cigars, and incidentally I learned that Mr. H. R. Taylor of golden eagle fame and editor of the defunct *Nidologist* had been in this vicinity collecting annual rents from golden eagle nests, and I also found out where they were but did not visit them owing to a mutual understanding between self-respecting members of the Cooper Ornithological Club that the law is violated when one collector interferes with another's nests, but I decided that the prairie falcon's nest was mine by right of a grant from the lessee of the land four months before Mr. Taylor had visited it. He was shown to it by friends on the 22d to the 24th of March and obtained a set of five fresh eggs.

By evening I had reached my destination and early next morning my host led the way over innumerable and rough trails through well wooded hills. Sycamore, alder, maple, oaks, an occasional laurel and madrone, with considerable underbrush skirted the creeks and dry water courses, while plenty of oaks were scattered about the hillsides together, with much promiscuous brush. One long range of hills was covered with chemise and sage only, rocky and devoid of grass, and the only trees were small pines. On the south side of the canyon were thickets of manzanita, tough and unbending, the lower branches hard and sharp, a formidable phalanx of spears to break through. After two hours of hard rustling the ridge containing the nest was reached, rugged and rough, covered with manzanita, prickly scrub-oak, sage, and chemise contrarily sending its slender but wiry branches with the downward slope of the hill, contesting our advance on an up grade. Here nature had piled her architecture of sandstone rock. Mimic cities of houses on the hills, pyramids of light-colored sandstone were scattered imposingly among the silvery-green pines, and castles of fantastic shapes rose majestically higher, while round about lay the fragments, large and small, of unfinished or discarded work. Turkey vultures, so many as twenty-seven at one time, were gliding closely overhead seemingly viewing the intrusion into their domain with surprise and distrust. An occasional western redbill appeared in the landscape of oak-dotted grassy knolls against the blue sky. Denizens of the sage, some variety of sparrows, too shy to identify, now and then flitted along. California thrashers (*Toxostoma redivivum*), natural born mockers, sang their matins or furnished melody in various forms, far from view in the chemise and sage, while the harsh scream of the California jay or the cheery springtime call of the red-shafted flicker were carried along the canyon, across which was a battered and broken ledge nowhere over 200 feet high, the home of the prairie falcon. We were now in a dry

arroyo, narrow and rocky in the center of the canyon, and found shady pools of clear cold rain water not yet evaporated from their cisterns of stone. Wending our way along and exploring many grotesque caves with the prints of buzzards, coyotes and wild cats on the sandy floors, constantly alert against surprise by the chance rattlesnake, we came into close quarters with a skunk and disposed of him without any inconvenience to ourselves, and in a large cave wherein we were attracted by a white-throated swift (*Aeronautes melanoleucus*) that had its nest in a cleft in the "ceiling," we tried to mix up with a wild cat that retreated far back to safety in a dark and narrow passage. By a circuituous climb we gained the ledge where the falcon fed. This ledge skirts the top of the canyon for a hundred feet or more and then breaks up into sandstone hummocks and rocky pinnacles, tenanted by the drowsy barn owl and sluggish turkey vulture. The height of the ledge is less than 200 feet at any place and the hill over the nest slopes gently upward and is well covered with chemise, sage, manzanita, suddenly changing to scrub-oak and timber with grass and low growing vegetation. The male took wing off a resting place close to the nest as we were making the circuituous climb, while the female, a very close sitter, closer than any of the duck hawks that have come under my observation, waited until we were almost over her, then darted out on a downward curve with great speed, for almost sixty yards, then rose to a height about twenty-five feet above us and flew to and fro over the canyon in trips about 2000 yards long, just out of gun range, almost constantly emitting a vociferous cackling or screeching. She continued in this manner for the space of half an hour and became more excited and approached closer at my descent to the nest, which was a small cave in the face of the smooth concave surface of the ledge and only eight feet from the top. The male remained flying about farther away and much higher, being much less concerned than his mate, finally alighting upon a dead limb across the canyon and then uttering a few short notes of one syllable, sometimes doubled by quick repetition; a sort of chug with considerable squeak to it. The actions of both birds were much the same as those of the duck hawk upon such occasions, but noticeably less fierce. The cackling or screeching was of about the same duration and in detail but of a different key. The flight of both species is quite similar, being rapid, of short, frequent strokes, producing a gliding motion, and at a distance reminding one of large swifts. Little sailing is indulged in except at considerable elevation at which time it is done in a circular course and within a defined radius.

After adjusting the rope about me, I made the descent but found the nest devoid of eggs so went downward a few feet and stood braced on a narrow foothold while my helper moved the slack rope preparatory to investigating other potholes and clefts, the wind and force of gravity sending quantities of sand down my neck and into my eyes, from the friction of the rope on the soft rocks. I was soon satisfied the bird had deposited no eggs, but was only holding down her claim preparatory to depositing the second set. There was insufficient rope, by sixty feet, to allow me to reach foothold below but my helper hauled me up the last few feet, 150 pounds dead weight, overcoming the friction of the rope besides. He sat, braced on the surface of the sloping hill, with a hole kicked for either heel, and accomplished a feat of main strength that I have no desire to be accessory to again.

The following year found us on this exact spot at 10:15 a. m., April 2, a heavy fog over all, which allowed us to approach within ten feet of the male keeping vigil in a small cave to one side of the nest. He flew towards and past us, creat-

ing a loud noise for a few moments. The female remained on duty until we were directly over the nest. They made but little fuss this time, probably owing to the fog. Upon lying down and looking well over the edge of the ledge, the eggs were seen on the sandy floor of a small pothole. They were five in number and so far advanced that the embryos were covered with down. Incubation must have been at least two weeks, causing this set to be the earliest laid of any in the latitude. Bendire's "Life Histories of North American Birds" records a set taken by Mr. W. E. Bryant on March 25, incubation fresh, some years ago at the place hereinbefore mentioned, at the foot of Mt. Diablo.

In 1900, March 31, we arrived at the ranch house and were told the birds had left the locality because one of the party had passed up the canyon last week and failed to see the birds. This was far from encouraging news after our long trip and it seemed our informant knew what he said, but I surmised he failed to see any birds because the female was a close sitter and the male might have been off on a hunting excursion, and we therefore decided to labor over the steep and winding route once more and not return without investigating more closely than a hunter would. When on the opposite hill, before the ledge appeared to view, we breathed a sigh of relief, for wasn't that the music we were anxious to hear, the notes of a prairie falcon? In a short time we saw the female reconnoitre from the nest-hole and after crossing the canyon and adjusting the rope, soon had five eggs in our possession; incubation fully one week. The male had alighted on a dead snag across the canyon and now and then uttered his "chug" notes, described where he allowed his mate to fly to and fro along the canyon, and once as she flew rather close to him he joined her for a short flight, then resumed his perch and uttered a sort of cackle unlike any I ever heard, neither can I remember it nor describe it after hearing it, except that it varied considerably from the usual sounds.

An advanced or retarded spring apparently cuts no figure with these birds. This year spring was well advanced while nidification was later.

In 1901, March 30, the site was tenanted by a pair of duck hawks, but no eggs were found although we worked the length of the ridge very thoroughly, nor did the birds raise any disturbance, as is the rule. One of them was sitting in the nest-hole when seen across the canyon, and the pair allowed us to approach surprisingly close before taking wing for a resting place further along the ridge, instead of making any sort of demonstration or flying about overhead. They were flushed again but only made a half-hearted fuss. From its superior size and fiercer habits I judged they had driven the prairie falcons into a new precinct, for we were not able to obtain a glimpse of them. It is probable that no pair of duck hawks or even prairie falcons dwell within a few miles of each other's domain owing to mutual antagonism. Once while robbing a duck hawk's nest in a dizzy cliff over a canyon the male had settled on a dead tree half a mile along the ridge leaving the angry female to swoop at us and do all the screeching. She took but little interest in abusing a couple of turkey vultures that came too close, but all at once a prairie falcon chanced across the zone of her short flights and she immediately attacked him, about 250 feet over the side hill. Both birds clinched with their talons, and in each others grip fell straight down like dead weights. Seemingly in an inextricable position they were about to meet with injury or death by contact with the ground below, but when within a few feet of the hill they simultaneously and deftly parted, swinging gracefully aside, the prairie falcon continuing its original course and the duck hawk resuming her swoops and invectives at us, with increased energy.

In 1902 we did not arrive at the prairie falcon nest until April 15, so as to

allow the usurping duck hawks ample time to pay the rent, and found things vice-versa once more. The prairie falcons tenanted the ledge as of old and we were fooled. We took one infertile egg, and the other four were pipped or seamed across preparatory to the shells breaking in twain. What the result will be this year is too early to say, but I expect the rightful owners to be in possession. It is apparent there is one place for a nest among numerous, to us, suitable caves and holes in a given locality that would be selected by any pair of birds in preference to all others, in which, if robbed of the first set, they will deposit the second, perhaps a third set that season, and rarely in a nesting place close by, but I have always known both species to return to the original nest at the beginning of next season.

**SUPPLEMENT.** On April 3, 1903, we visited the ledge once more having been delayed fully a week by rains rendering the roads unfit for travel. The nest was approached from the north through the brush and sage and so accurately gauged that we arrived in a straight line almost. When close to the precipice the crackling of a dry branch scared the prairie falcon from her nest, about six feet to one side of us. Launching like a dart into the air, with loud cries, she sped like a brown meteor into the sunshine over the crags below, until her initial velocity was allowed to wane, and for a second or two she hung in the landscape slightly below, the master touch to an unsurpassable natural panorama. The five eggs contained small embryos, and by comparison coincide with those of the original bird. Eggs from her average larger than any from other of her species that I have handled.

Later: May 6, the second set of the season was obtained from a similar site in the same ledge about twelve feet from the top. One egg was sterile, the others were slightly incubated.

### Bird Life on the Farallone Islands

BY HENRY B. KAEDING

Illustrated from Photographs by the Author

**T**HE Farallone Islands lie about twenty-four miles west of the city of San Francisco and are to be reached from that point by tug or sail-boat. They consist of two main islets about four miles apart. The north islet is inaccessible except in very calm weather and the following notes were taken on the South Farallones only. These South Farallones are two islets lying very close together, —the fact that they are two islets instead of one being due to a narrow cleft that can be spanned by a plank.

On the eastern islet of the South Farallone group is located the Light House Station and the Weather Bureau Station. The light house proper is on the highest point of the eastern end. There are no houses or buildings of any kind on the western islet, the only structure being the tall signal staff on the highest peak.

The party that visited the islands during the first week in June, 1903, comprised, besides the writer, Frank M. Chapman and wife, Mrs. Davenport, Louis A. Fuertes, Dr. T. S. Palmer, and W. Otto Emerson. Leaving San Francisco on the 2nd of June at 10 a. m., we arrived at the island about 2:30 p. m. after a very rough passage. As the little steamer approached the rocks we saw the birds ris-

ing in clouds from their resting places and swinging around us and out to sea, passing others which were en route for the rocks. Tufted puffins, like Gargantuan black swifts, sped like animated bullets to and fro; California murres, less partial to flight, terminated their journeys in the water and dotted the waves in every direction; cormorants winged their heavy way from the detached rocks near the main island, the different species readily distinguishable by the characteristic breeding plumages. The odor of sea-fowl and guano filled the air, and from the rookeries came the ceaseless chatter and croaking of thousands of birds.

Photography being the main object in view, after settling our traps we started out to look the rookeries over with a view of picking the best spots for next day's work. We soon placed the different colonies of murres, gulls and cormorants, and after securing a few photos, returned to a late supper and bed.

June 3rd found us early at work, and during the forenoon interesting photo-



TUFTED PUFFIN AT MOUTH OF BURROW

graphs were secured, mainly of murres, pigeon guillemots, and Cassin auklets. The guillemots were found distributed fairly well over the island, thicker perhaps at the eastern end, where broken rock and detached granite boulders form many ideal nooks and crannies for nesting places. The eggs are two in number and are placed in the crevices of the rocks without any attempt at making a nest. These are striking birds in their sooty black dress, white wing-patches and vivid scarlet bills, eyes and feet. When disturbed by the approach of an intruder they open wide their bills and emit a peculiarly weak but penetrating "whistle." Several long-distance photos were secured but we could not get closer to them than twenty feet, and they were too wary to catch on the nest. With these birds, nesting was just fairly under way, nearly all the burrows holding a full complement of eggs.

The Cassin auklets nest all over the island, wherever a suitable burrow is available. They are more of a burrowing bird than the guillemots, often excavat-

ing their own burrows where there is soil enough, or using a crevice in the rocks if it is small and deep, while the guillemots will use a larger and more exposed crevice under a boulder. The auklets are very plentiful on these islands, less so, however, than on the islands farther south along the Lower California coast, where sandy soil offers every opportunity for them to excavate long and perfect burrows. At this date, June 3, the auklets all had eggs and very few were fresh, incubation being apparently about half completed.

These Cassin auklets are curious little fellows, preferring to do their foraging and courting at night and keeping out of sight during the day. Every night and all night long they keep up a constant talking and calling, flying about in the dark with apparent ease.

At the eastern end of the island is located one of the most curious sights of the place: Murre Cave it is called, and is in fact a great narrow vertical cleft in the cliff, facing seaward and rather difficult of access. It extends into the cliff for



CALIFORNIA MURRE

perhaps 100 feet, and there is a broad ledge or bench about half way in, and the whole place is alive with the murre. They sit close together, breast to back, side to side, till the cave is lined with their snowy breasts and sooty heads. They were uneasy at our approach, but few left till we had been inside for some little time. Then the leaders started, and after them came a stream of murre that kept increasing in volume till the air was full and the mouth of the cave was vomiting a cloud of birds, like smoke pouring out of a chimney. The murre were nesting in other colonies at various places about the island, one great colony being on a rock just off shore on the north side. At this date they had barely started laying. We found only a few eggs, fresh laid, and this was evidently the reason that the birds were shy and easily disturbed. Had we been three weeks later, when all would have been found incubating, we would doubtless have been able to go amongst them without disturbing them very much, as they are fearful of leaving their eggs on account of the robbing of the gulls.



As the day progressed we visited many parts of the island and secured numerous photos.

Rock wrens were plentiful everywhere, their cheery song the only melodious note in the unceasing discord of the feathered multitude. They had their full-fledged young out receiving the first instructions in flight, although a nest was found containing fresh eggs.

The tufted puffins form an interesting part of the bird-life of these lonely little rocks. They are scattered over the whole island, but nest most abundantly in the rocky crevices at the extreme western end. Their nesting burrows, like those of the guillemots, are crevices in the cliffs and cavities under boulders, but they select deeper niches than the guillemots and are quite close sitters, it often being possible to find the bird on the nest. The single white egg is laid on the bottom of the crevice with no attempt at nest construction, and at this date the eggs were partially incubated. Often the mate of the incubating bird will take up its position

like a sentinel on the rock close to the entrance of the burrow, and it was possible to approach within a few feet of them and secure a photograph. Dealing with the incubating birds, however, was a matter of difficulty, as their narrow, powerful bill is armed with a cutting edge as sharp as a knife and they are not at all averse to putting it into operation.

Not the least interesting of this colony are the western gulls. Their numbers are decreasing and their nesting colonies are scattered, the largest being on the southwest part of the



WESTERN GULL ENTERING NEST

island. The nests are built of dried weeds, brown and mottled in color, and the nest and eggs so harmonize with the surroundings that it is difficult to see them readily until almost close enough to step on them. At this date they had eggs, some of the nests not yet with a full complement and others with partially incubated eggs. The birds are wary and not close sitters, due doubtless to the fact that they are subjected to systematic robbing twice a week by the light-house keepers, who make use of their eggs till the murrelets start to lay, when the gulls get a chance to raise their young and the murrelets contribute to the daily fare of the men. Perhaps this is retribution, for the gulls themselves are the most arrant robbers among birds. It is no uncommon sight to see a flock of gulls hovering over a nesting colony of murrelets in an effort to drive them from their eggs, and seizing every egg that is exposed. Should another cause drive the murrelets from their eggs, the gulls reap a harvest. This is perhaps as potent a factor as any in the destruction of the murrelets, for while the human eggers took only the fresh eggs, they disturbed the whole colony of murrelets, and the gulls took everything in sight.

It is the same with young birds, whether they be young murrelets or cormorants—the gulls take all they can get. Mr. Fuertes related a case where he inadvertently disturbed a rookery of several hundred cormorants, and saw the gulls clean out every nest before the cormorants could return.

Photographs of nesting gulls were secured by focusing the camera on the nest and retiring to a distance with a cord attached to the shutter, and patiently awaiting the return of the bird.

Of the cormorants the island supports three breeding species: the Farallone cormorant is the least common, there being only one small colony of these fowl, containing not more than seventy individuals. They are nesting in a sheltered nook nearly at the summit of the island and had young when we were there. We were able to approach them quite close as the old birds were reluctant to leave the young exposed to the gulls or to the fierce rays of the sun, so that we got good photos.

The Baird cormorants nest in small scattered colonies in various places over the whole island, selecting the ledges of the cliffs for nesting sites. They had full sets of eggs at this date and were rather wary, not permitting us to get close enough to photograph them on the nest except at long range. This cormorant is readily distinguished in the nuptial plumage by the conspicuous white flanks.

Brandt cormorants were the most abundant of the three, and were starting to lay at this date. They seem to prefer the detached rocks about the island and covered them in thousands. There is also a large colony on the northwestern slope of the island.



WESTERN GULL ON NEST

Red phalaropes and northern phalaropes were not uncommon in the tide pools along the coast line, and a few black turnstones, wandering tattlers, black oyster-catchers and surf birds were seen along the water's edge.

A single pair of ravens had their nest in a high cliff on the west end, but they were marked by the keepers and shot later, in expiation of their raids on the domestic hen houses.

Last, but quite the contrary of least interesting of this great colony, are the petrels. Two species of these little fellows are known to breed there, but we saw only one. The Leach petrel was found on the Farallones by Mr. Leverett M. Loomis some years ago, but all those that we discovered during our short stay were ash petrels, and they are undoubtedly the only petrel that nest there in any numbers. The stone walls that run here and there over the island shelter in their crevices many a petrel and at this date they had fresh eggs. Many collectors and

the men on the island can locate the petrels in the walls by the characteristic musky odor they give off, but we were not able to do so ourselves, and found the easiest way was to prowl around after dark, when, like the auklets, these diminutive Tubinares are chattering and talking to each other, and to mark the places where the sounds came from. In this way we located several but unfortunately were not able to find one on the egg in such a position that we could photograph it, so that we were obliged to return without a photo of this species.

These petrels, like others of their kind that nest farther south, are nocturnal in their habits during the breeding season, and seem to exchange places shortly after dark, the incoming birds replacing the mate on the nest after an exchange of courtesies and a chat over the day's happenings. These conversations are carried on in a queer little sing-song twitter, regularly punctuated with a gasp that re-



FARALLONE CORMORANTS AND YOUNG

sembles the exhaust of a Lilliputian engine. This twitter is characteristic of all petrels, varying with the species, and has been admirably described by Mr. A. W. Anthony.

When flying about in the dim light the petrels resemble bats. Their flight is fluttering and zig-zag and they frequently flit by the head of the watcher close enough for him to feel the wind of their wings. Often they run into the glass around the big light, or into the telephone wires that stretch from the light-house to the keepers houses and the siren, and terminate their erratic careers then and there. Small, dainty and velvety, they are the prettiest little birds imaginable, and would be perfect were it not for their habit of vomiting oil over everything when disturbed.

We remained on the Farallones nearly three days, returning to San Francisco June 5, 1903, and although we had all seen sea-bird colonies before, we were

unanimous in saying that the Farallones are unique. There is nothing to compare with them on the Pacific Coast and the eastern members of the party said the same for the Atlantic coast. The thing that impresses the ornithologist most on a first visit to these islands is the number of birds *in evidence*; the great shearwater breeding grounds of the southern islands, the vast auklet and petrel colonies of the same localities, do not impress the observer with the force that the colonies of murre and cormorants on the Farallones do, for they are not in sight. True that in places where the wedge-tailed shearwater (*Puffinus cuneatus*) nest by thousands, the air is at times clouded with birds, yet these is no comparison between this and the Farallones, where the nesting colonies are open and the birds in sight at all times. A trip to the Farallones is a liberal education.

Following is a list of the birds observed in the Farallones:

*Phalacrocorax penicillatus* (Brandt) Brandt Cormorant.

*Phalacrocorax pelagicus resplendens* (Aud.) Baird Cormorant.



PIGEON GUILLEMOT'S EGGS IN SITU

*Phalacrocorax dilophus albociliatus* (Ridgw.) Farallone Cormorant.

*Oceanodroma homochroa* (Coues) Ashy Petrel.

*Larus occidentalis* (Aud.) Western Gull.

*Lunda cirrhata* (Pall.) Tufted Puffin.

*Ptychoramphus aleuticus* (Pall.) Cassin Auklet.

*Cepphus columba* (Pall.) Pigeon Guillemot.

*Uria troile californica* (Bryant) California Murre.

*Heteractilus incanus* (Gmel.) Wandering Tattler.

*Aphriza virgata* (Gmel.) Surf Bird.

*Arenaria melanocephala* (Vig.) Black Turnstone.

*Hæmatopus bachmani* (Aud.) Black Oyster-catcher.

*Crymophilus fulicarius* (Linn.) Red Phalarope.

*Phalaropus lobatus* (Linn.) Northern Phalarope.

*Corvus corax sinuatus* (Wagl.) American Raven.

*Salpinctes obsoletus* (Say) Rock Wren.

## A List of Birds Observed in Cochise County, Arizona

BY WILFRED H. OSGOOD

FROM November 1, 1894, to June 1, 1895, I was located in Sulphur Spring Valley, near Willcox, Cochise County, Arizona. During this period of seven months I devoted as much time as could be spared from other duties to making a collection of the birds of the region. The following list is intended to give a condensed record of this work without attempting to detail special notes that were taken on the habits of many species and thus to render accessible whatever may be of interest in connection with the study of geographic distribution, migration, dates of nesting, etc. My headquarters was at the stock ranch of Mr. Thomas Allaire, a cattleman and a cultured gentleman, to whom I am indebted for exceptional courtesies. The Allaire house is situated in a rather dreary place about ten miles south of Willcox; on one side is a dry alkali 'lake' seven miles long and three miles wide and with no vestige of vegetation on its surface; on the other side, toward the east, a scattered growth of low mesquite stretching away for miles presents an outlook a trifle more inviting. About the house and corrals are a few clumps of cottonwoods which attracted wandering flocks of birds on many occasions. The elevation of Sulphur Spring Valley is about 4500 feet, but conditions of considerable aridity prevail and in a general way the fauna and flora is that of a desert region. The only natural water supply in the valley is the small spring called Sulphur Spring about seven miles south of Allaire's ranch. Several groups of low mountains are scattered along the sides of the valley and at either end are more extensive chains, the Graham mountains on the north and the lofty Chiricahuas on the south. Most of my collecting was done within a radius of five miles from Allaire's ranch, but occasional trips were made to Sulphur Springs and to the Dragoon and Chiricahua mountains. In the Dragoon mountains, which are about ten miles southwest of Allaire's ranch, I spent some little time in Cochise canyon and in the Chiricahua mountains, I collected in Hunt Canyon a few miles from the post-office of Rucker. Except where other localities are mentioned, records of specimens or observations apply to Allaire's ranch. Specimens were shot and preserved of all species included in the list, unless otherwise stated.

*Anas boschas*. Mallard. Common at Sulphur Spring in March.

*Nettion carolinensis*. Green-wing Teal. Taken at Sulphur Spring.

*Querquedula discors*. Blue-wing Teal. A pair taken April 13 near Allaire's ranch.

*Querquedula cyanoptera*. Cinnamon Teal. The most common duck about the mud-holes during the winter; often taken at Sulphur Spring.

*Nycticorax nycticorax naevius*. Black-crowned Night Heron. One specimen shot in the cottonwoods at the ranch May 14.

*Fulica americana*. American Coot. A large flock was found at Sulphur Spring in the early part of March.

*Gallinago delicata*. Wilson Snipe. Taken at Sulphur Spring in March and April.

*Numenius* sp. Curlew. A curlew was seen near Willcox about November 1.

*Agialitis vocifera*. Killdeer. Quite common. A rancher's boy told me that he had found its eggs.

*Agialitis montana*. Mountain Plover. Large flocks were seen in December and January.

**Callipepla squamata.** Scaled Quail. Very common throughout the valley. Females with large eggs in their oviducts were taken May 22. A flock of about sixty came for several weeks morning and night into the corral to drink.

**Lophortyx gambeli.** Gambel Quail. Seen in the Chiricahua mountains but not found in the Dragoons.

**Cyrtonyx montezumæ mearnsi.** Mearns Quail. The Mearns quail was not seen by me but was reported from Rucker in the foothills of the Chiricahua mountains and was said to have been abundant about the Dragoons in former years. It is well known to the ranchmen who commonly call it the 'fool quail.'

**Meleagris gallopavo merriami.** Merriam Turkey. Reported from the foothills of the Chiricahuas.

**Zenaidura macroura.** Mourning Dove. Very Common. They were our staple article of food in early summer.

**Melopelia leucoptera.** White-winged Dove. One specimen shot in the cotton-woods at the ranch.

**Columbigallina passerina pallescens.** Mexican Ground Dove. One seen near Sulphur Spring May 29.

**Cathartes aura.** Turkey Vulture. Quite common. Always seen soaring about the cliffs of Cochise Stronghold.

**Circus hudsonius.** Marsh Hawk. Seen at Sulphur Spring.

**Accipiter velox.** Sharp-shinned Hawk. One taken near the house at Allaire's ranch in early November.

**Accipiter cooperi.** Cooper Hawk. Not uncommon through the winter.

**Buteo borealis calurus.** Western Red-tail. Rather rare and not often seen. A pair had a nest a few miles east of the ranch.

**Buteo swainsoni.** Swainson Hawk. The most common hawk. Nests were found in the mesquites at elevations of from six to fifteen feet. Fresh eggs were taken May 12, 19, 23, 25 and 29.

**Archibuteo ferrugineus.** Ferruginous Rough-leg. A large hawk thought to be this species was seen once.

**Aquila chrysaetos.** Golden Eagle. Seen occasionally. One day I rode over a little sandhill and surprised one which was there feeding on a prairie dog.

**Falco mexicanus.** Prairie Falcon. One was shot near the ranch in November. A pair remained about an old deserted house for several weeks in December and January.

**Falco sparverius phalaena.** Desert Sparrow Hawk. Not common. Noticed a number on April 11th. Seen occasionally in January.

**Asio wilsonianus.** Long-eared Owl. One found dead near the house April 11.

**Asio accipitrinus.** Short-eared Owl. Common at Sulphur Spring in winter. No specimens taken.

**Bubo v. pallescens.** Western Horned Owl. A large owl made nightly visits to our pigeon boxes and with disastrous effect, but I failed to secure him although I watched for several nights.

**Speotyto cunicularia hypogæa.** Burrowing Owl. A large colony was located in a dogtown about 200 yards from the house at Allaire's ranch. A few were seen elsewhere in the valley.

**Micropallas whitneyi.** Elf Owl. One specimen taken in the Dragoons April 14. In brushing against a low bush I started this fellow up. He flew quickly and alighted in a thick bush where I could not see him distinctly. Not knowing what I was shooting, I fired, and was surprised when I picked him up to find an owl.



**Geococcyx californianus.** Road-runner. Quite common. Nests were often seen in the chollas and mesquites but no eggs were found.

**Ceryle alcyon.** Belted Kingfisher. One seen May 14, miles from water. It was amusing to watch it hopping about on the ground catching insects.

**Dryobates scalaris bairdi.** Baird Woodpecker. Common in the Dragoon mountains. Also frequently taken in the mesquite brush in the valley.

**Dryobates arizonæ.** Arizona Woodpecker. Not uncommon in the Dragoon mountains, but very shy and hard to secure. Female shot April 14 contained large eggs. Found also in the Chiricahuas. Seen rarely in the valley.

**Melanerpes formicivorus.** Ant-eating Woodpecker. Quite common in the Dragoon mountains.

**Colaptes cafer collaris.** Red-shafted Flicker. Common about old houses in the valley.

**Chordeiles acutipennis texensis.** Texan Nighthawk. They arrived about May 25 and were becoming very common June 1 when I left.

**Trochilus alexandri.** Black-chinned Hummer. Common.

**Selasphorus platycercus.** Broad-tailed Hummer. Several taken.

**Tyrannus verticalis.** Arkansas Kingbird. A few were taken. Not so common as the following.

**Tyrannus vociferans.** Cassin Kingbird. First seen April 4, after which it became common. A nest with fresh eggs was found in a cottonwood tree about thirty feet from the ground May 26.

**Myiarchus cinerascens.** Ash-throated Flycatcher. First taken April 14, after which it became very common both in the valley and in the Dragoon mountains. No specimens positively referable to the subspecies *nuttongi* were taken.

**Sayornis saya** (subsp. ?). Say Phoebe. Very common. Every suitable place was tenanted by a pair. Nests were found in sheds, tanks, windmills and old wells. First fresh eggs taken April 11.

**Sayornis nigricans.** Black Phoebe. One was seen at Sulphur Spring March 16.

**Contopus borealis.** Olive-sided Flycatcher. The only one seen in the valley was taken near the house at Allaire's ranch May 22.

**Contopus richardsoni.** Western Wood Pewee. Quite common. Its first appearance was May 17.

**Empidonax wrighti.** Wright Flycatcher. Fairly common after May 3 when it was first seen.

**Pyrocephalus rubineus mexicanus.** Vermilion Flycatcher. One remained about the house at Allaire's ranch for several days in the latter part of April. One was taken in the Dragoon mountains May 3. Also seen in the Chiricahua mountains.

**Otocoris alpestris** subsp. ? Horned Lark. Very abundant; probably exceeding in number all other species. Young birds able to fly were seen May 26. At least three forms of horned larks were taken which when first collected were identified as *pallida*, *arenicola*, and *adusta*, but as the specimens are not accessible at present, I prefer not to publish these names as positive identifications.

**Cyanocitta stelleri diademata.** Long-crested Jay. Common in the Dragoon and in the Chiricahua mountains. Seen in the valley on one occasion only.

**Aphelocoma woodhousei.** Woodhouse Jay. Common in the mountains. In the latter part of April several troops of forty or fifty of these birds were seen in the valley.

**Aphelocoma s. arizonæ.** Arizona Jay. In the Dragoon and the Chiricahua mountains this species was more common than either of the preceding. Several

sets of slightly incubated eggs were taken in the Dragoons April 14. The nests were large coarse affairs placed from ten feet to twenty feet from the ground in white oaks.

**Corvus cryptoleucus.** White-necked Raven. Abundant all over the valley. First fresh eggs taken May 22.

**Molothrus ater obscurus.** Dwarf Cowbird. Common about the corrals and cattle-yards. No specimens taken.

**Xanthocephalus xanthocephalus.** Yellow-headed Blackbird. Seen about the corrals in company with the preceding species.

**Agelaius phoeniceus subsp.?** Red-winged Blackbird. Often seen at Sulphur Spring. No specimens taken.

**Sturnella magna neglecta.** Western Meadowlark. Several pairs were generally seen about Sulphur Spring.

**Icterus parisorum.** Scott Oriole. First seen in the Dagoon mountains April 14. Not seen in the valley. Several specimens taken.

**Icterus cucullatus nelsoni.** Arizona Hooded Oriole. First arrival was taken in the cottonwoods near Allaire's house April 8. Afterwards it became common.

**Scolecophagus cyanocephalus.** Brewer Blackbird. Very common; large flocks seen about the corrals.

**Icterus bullocki.** Bullock Oriole. Very common throughout the mesquite brush in May.

**Carpodacus cassinii.** Cassin Purple Finch. A young male was taken in the Dagoon mountains in winter.

**Carpodacus m. frontalis.** House Finch. Abundant. Large flocks frequently stopped for a brief visit in the cottonwoods about the house at Allaire's.

**Calcarius ornatus.** Chestnut-collared Longspur. In February and March the chestnut-collared longspur was exceedingly abundant. They were seen flying over at all times and at nightfall clouds of them would sweep over the house and on down to the grass at the edge of the alkali lake, whence they straggled out at daybreak.

**Rhynchophanes mccowni.** McCown Longspur. Found in company with the preceding species but not in quite such large numbers. They were most common at Sulphur Spring where they fairly swarmed. They were last seen April 6 at which time the great majority had already left.

**Poœcetes g. confinis.** Western Vesper Sparrow. First seen March 16 when one specimen was taken at Sulphur Spring. A few weeks later they were quite common all over the valley.

**Ammodramus s. alaudinus.** Western Savanna Sparrow. Very common after the middle of January; most numerous about Sulphur Spring.

**Chondestes g. strigatus.** Western Lark Sparrow. A few were noticed in the cottonwoods at Allaire's April 15. They soon became very common and large flocks were frequently seen in the opens.

**Zonotrichia leucophrys.** White-crowned Sparrow. A small flock containing several adults and a larger number of hornotines remained about the mesquite in the immediate vicinity of the ranch house during most of my stay. They were never seen more than 100 yards from the house and the country for several miles around was pretty thoroughly worked. When I left on June 1st a few still remained about the house.

**Spizella s. arizonæ.** Western Chipping Sparrow. Abundant at all points visited. Large flocks were seen in the oaks of the Dagoon mountains.

(To be concluded)

## FROM FIELD AND STUDY

**The Home of the California Road-runner.**—On March 25th, 1903, one of the boys, a student in my Commercial School, told me of a road-runner's nest in Cholla Valley, and after school hours we started out to take a picture of the nest and to take the eggs.



NEST OF ROAD-RUNNER

After a walk of about two miles we arrived at the rustic abode, and found Mrs. *Geococcyx Californianus* at home, but she was somewhat shy and did not wish to have her picture taken, so we had to be satisfied with one of her nest and eggs, which are shown in the accompanying illustration.

The nest was a rather compact one, made of small weeds and twigs, carefully laid and woven among the branches of the "cholla" or "devil cactus" so common in Southern California. The outside diameter was about eleven inches, while the saucer shaped interior was about one and one-half inches in depth and six inches

in diameter. The eggs, four in number, and nearly white, measured 41 mm. in length by 30 mm. in diameter.

This wise little bird has a strange habit of building among the protecting thorns of the devil



YOUNG ROAD-RUNNERS

cactus, among whose thousand sharp points the old bird runs with apparent impunity, while the bristling spines keep out many an inquisitive visitor. In fact the thorny beds of cactus seem to be the favorite resort of the road-runner, and in the spring she may often

be seen leading her little brood of tiny chicks in and out among the almost impenetrable masses of thorns.

The second illustration shows two young road-runners, probably six weeks old, in the nest. This was in a clump of cactus in Upper Chollas Valley, and the little fellows were very patient and considerate, remaining quiet and looking pleasant while the artist went through the necessary preliminaries and made the plate. The one at the left, however, being somewhat shy, hid his head behind his companion just before the exposure was made. To see if the birds remained, because they were unable to run, I stirred them up a little and they hopped off the nest and ran away through the cactus and weeds, looking back occasionally to see if they were being pursued.—F. W. KELSEY, *Prin. San Diego Com'l. College.*

**Early Nesting of *Calypste anna* in the Vicinity of Santa Monica, California.**—During the season of 1901 I was fortunate enough to locate several sets of Anna hummers in January and February, but not having much time to devote to oology at that time I was compelled to confine my observations to a very small locality near my residence, namely, a grove of eucalyptus trees which was completely surrounded by a hedge of cypress. These latter were the favorite nesting place of the hummers. The whole grove, eucalyptus, cypress and all, only covered an ordinary city block of about 220 yards square.

In walking through this grove on January 21 of that year I noticed two female Anna hummers gathering material for nests and on watching them closely, soon located the nests, both of which were in cypress trees, and just started, one about twelve and the other twenty-three feet high. These nests were carefully watched and on January 30, I collected my earliest set of Anna hummers. The other only contained one egg on this date but a complete set was taken on February 1. On systematically going over and watching this grove I found seven nests in all before the first of March, all of which contained fresh eggs excepting one, and that nearly full fledged young, which, by my reckoning would have been a fresh set about the second week in January.

Locating so many sets in such a small place and so early in the season seemed to me quite unusual and I determined to follow it up the next season and see what the results would be. Circumstances compelled me to give this up in 1902 but the present year found me with plenty of time on my hands. I made my first observation trip on January 1, and I was rewarded by finding two nests just about ready for eggs. One contained a set on January 4, and the other January 8. My observations were not confined to the special grove I have mentioned above but took in several oak and eucalyptus groves within a radius of two miles of Santa Monica.

Between January 1 and February 18 I have found fifty-two nests of Anna hummingbirds and was only out, then, about two hours every third day. The following from my field book shows the result:

Jan. 1, 2 nests noted, both building.  
 Jan. 8, 1 nest noted with a fresh set.  
 Jan. 18, 1 nest noted with 2 eggs, slightly incubated.  
 Jan. 21, 1 nest noted with two eggs perfectly fresh.  
 Jan. 23, 1 nest noted with two eggs slightly incubated.  
 Jan. 25, 6 nests noted, 4 of which were building and 2 contained fresh sets.  
 Feb. 7, 2 nests noted, one contained a set badly incubated and the other fresh.  
 Feb. 8, 1 nest noted, which contained young about  $\frac{3}{4}$  grown.

Feb. 10, 9 nests noted, 7 of which were building in the different stages and two fresh sets.

Feb. 11, 6 nests noted, one was building. 3 fresh sets, 1 with nearly grown young and one which contained two eggs of which one was broken, evidently by the parent as the nest was deserted and the tree covered with ants.

Feb. 13, 2 nests noted, both with fresh sets.

Feb. 15, 13 nests noted, 4 building and 9 contained fresh or slightly incubated sets.

Feb. 16, 3 nests noted, all with fresh eggs.

Feb. 18, 4 nests noted, 1 building, 1 with a fresh set and two with badly incubated eggs.

They were in trees as follows: 1 in a cotton wood, 1 in a willow, 2 in sumachs, 5 in cypress, 36 in eucalyptus, and were from seventeen inches high, in a sumach, to about thirty feet in a cotton wood.

The above records, I believe, show that the Anna hummingbird is a very early breeder and in fact, it may be stated that they are just as plentiful in the latter part of January and the whole of February as in March, April, May and June. In looking over my notes for the past ten years I find no time where the Anna hummer has been as plentiful as the present season. We may even find that it breeds more abundantly in February than in any other month, or this may be a freak season, which will only be settled by later developments.—W. LEE CHAMBERS.

**The Western Marsh Wren in California.**—An examination of the marsh wrens in the collections of Mr. Frank S. Daggett and myself discloses the fact that two easily-

distinguished forms occur in southern California west of the Sierras. One is a small dark-colored bird which is the breeding race and remains throughout the year. This answers to the character of the tule wren (*Cistothorus palustris paludicola* Baird). The other is a large, pale bird which occurs only in winter. This accords well with the description of the western marsh wren (*Cistothorus palustris plesius* Oberholser). We have specimens of the latter as follows: Coll. F. S. D., No. 412, Feb. 21, 1896, taken at Long Beach; Nos. 409 and 410, Dec. 26, 1895, and No. 414, Jan. 22, 1896, all three taken at Bixby, Los Angeles County. Coll. J. G., No. 596, Dec. 27, 1895, also taken at Bixby; Nos. 1695 and 1696, Nov. 7, 1896, taken at El Monte, Los Angeles County. These specimens are unmistakable and indicate that at least in the winter of 1895-96 there was a general movement of the Great Basin form westward into the San Diegan district. It seems quite improbable that this was an exceptional state of affairs; for nearly all our marsh wrens, *paludicola* as well as *plesius*, were taken during only those two years. And then, too, one recalls the well-known paralleled winter movements of the Say phoebe, mountain blue-bird, sage sparrow, and, as recently discovered, the sage thrasher (see Swarth, *Condor* II, July 1900, p. 89). The western marsh wren has previously been recorded along the eastern boundary of the state, well within the Great Basin, whence Oberholser (*Auk* XIV, April 1897, p. 193) reported specimens from Fort Crook, Death Valley and Eagle Lake, the latter a breeding station. The same writer also mentions Marysville in his locality list, and as this is not starred, it may be taken as another instance of winter emigration westward. Observers west of the Sierras should be on the lookout for this race, as interesting facts in regard to its migration and winter distribution may be forthcoming. As an aid in the determination of specimens, I append the following diagnosis: *Cistothorus palustris plesius* ♂, No. 1696, Coll. J. G.; El Monte, Cal.; Nov. 7, 1896.)—Wing 55.5 min. (2.18 inches); tail 55.5 (2.18); culmen 13 (.50); bill from nostril 9.8 (.39); tarsus 20.5 (.80). Ground color of upper parts cinnamon; chest, sides and flanks washed with cinnamon; black markings on wings and tail distinct; black pileum divided by broad cinnamon interval. *Cistothorus palustris paludicola* (♂, No. 4960, Coll. J. G.; Palo Alto, Cal.; Nov. 23, 1901.)—Wing 48 min. (1.90 inches); tail 46 (1.81); culmen 12 (.46); bill from nostril 9 (.36); tarsus 18 (.72). Ground color of upper parts Vandyke brown; chest sides and flanks strongly isabella color; black markings on wings and tail fused together; black pileum only washed with brown toward the forehead.

The specimens above described represent rather extreme manifestations of the two specimens. A number of individuals fall variously between. It may be remarked that some San Diegan district birds are paler than others from the San Francisco Bay region, and both sets are somewhat smaller than the stated measurements of Washington skins. Doubtless these differences are significant of geographical variation locally along the Pacific coast. But our material is as yet too scanty to afford conclusive demonstration.—JOSEPH GRINNELL.

**More About the Band-tailed Pigeon (*Columba fasciata*).**—The interesting article in the January *CONDOR* by C. S. Sharp on the Band-tailed Pigeon set me to looking up my records and I find a few notes bearing on the subject.

Each winter a few of the pigeons are seen in the canyons on either side of the San Geronio Pass between San Geronio and San Jacinto peaks, and a few pairs remain to nest higher in the mountains. I have seen on both mountains at an altitude of six to eight thousand feet old nests which I took to be those of the pigeon. May 14, 1897, I found on San Jacinto mountain, at about 6500 feet elevation, two nests containing young birds, one in each nest. The first was just hatched and the other half grown. Both nests were in oak trees fifteen to twenty feet from the ground and were discovered only as the old bird fluttered from the nest. The location of each nest was on a horizontal branch in thick part of the tree and rather difficult to find. They were mere platforms of twigs similar to nests of the mourning dove and it is a marvel how the eggs can be kept warm enough to hatch, resting on such an airy structure and at that altitude in springtime.

During the spring of 1901 I saw several pairs on Rabbit Mountain, 7100 feet elevation, east of Hot Springs, Warner Ranch, San Diego County. Several pairs and a flock of seven remained on the mountain till at least June and though I found three old nests, all in oak trees, no new ones were seen.

In Lost Valley about 5000 feet elevation, between Rabbit Mountain and Coyote Creek I saw several pairs and a flock of a dozen or more. They were still there June 12, when I left, but no nests were discovered.

In March, 1901, great flocks of the pigeons poured into San Geronio Pass and fed in the barley fields. For about two weeks there were hundreds of them but they all left as suddenly as they had appeared. Their method of feeding was peculiar. Instead of spreading out they kept together, alternately walking and flying. Those behind would fly a few feet ahead of the advance line, alight, and walk along picking up grain until other rear ones would fly ahead and it came their turn again.

In this way the flock advanced, some in the air all the time and ground was covered quite rapidly. A specimen secured measured 26 inches across the expanded wings and his crop contained 615 grains of barley by actual count. Others had eaten the large-sized acorns, growing in the mountains, the swallowing of which would seem an utter impossibility. The oldest inhabitant of the Pass stated that only twice before in the last fifty years had the pigeons appeared in large numbers.—M. FRENCH GILMAN, *Banning, Cal.*

**Correction of Doubtful Records.**—Believing the suggestion made by Mr. Joseph Grinnell in THE CONDOR (Vol. IV, No. 1) that all errors in identification are best promptly corrected I have gone carefully over all my published writings and append the following list of doubtful records.

1. *Dendroica occidentalis*—*Osprey*, Vol. III, No. 4. Possibly *D. nigrescens*; no skin taken as the Guardian of Yosemite Valley prohibits the use of firearms. 2. *Oroscoptes montanus*. 3. *Catherpes mexicanus conspersus*—*Osprey*, Vol. V, No. 1. Out of the 43 species recorded from Sur River the two above species are the only ones I find to have been admitted on insufficient evidence. 4. *Tachycineta thalassina*—*Osprey*, Vol. V, No. 8. Skins taken the following year (1902) proved this to be *Tachycineta bicolor*.—MILTON S. RAY.

**Wasted Talent.**—Upon laying open a cavity in an oak, in which some time previously I had discovered a pair of olivaceous fly-catchers (*Myiarchus l. olivascens*) to be building a nest, I found that the occupants had displayed a taste quite unusual in birds that nest in the dark and out of sight.

The cavity was an ancient one, made originally by woodpeckers. It was much enlarged by the shrinking of the walls, which were seamed and furrowed by cut worms or other agents. The most conspicuous of these depressions were filled in with nest material, mostly feathers, and so well inserted, particularly some coarse feathers, that they were not very easily removed. It was as tho they had been tamped in. All the more conspicuous depressions up to the height of the opening, some five inches above rim of nest were treated thus.

Was the work instigated by that instinct for beautifying their nests displayed by birds that build them where they can be seen by man? It scarcely added to the comfort of the nest, being quite above it, and it stopped the entrance of no light or air.

After removing the material I regretted not having photographed the work.

Afterward, in two other instances, I found the same thing done tho to a less marked degree, so, it seems, it is a characteristic of this interesting bird.

The nest referred to contained four eggs of dimensions as follows: .70 by .55, .70 by .53, .69 by .56, .68 by .54 inches.

The material of which the nest was composed was less than half hair, which forms almost the sole nest material used by its congener *M. cinerascens* and included ravelings of gunnysack, used by the naturalist as bait to discover the nest, cow hair, and rabbit fur, dried grass, bark-fibers and many feathers.—R. D. LUSK, *Tucson, Ariz.*

### Minutes of Club Meetings

**NORTHERN DIVISION: JULY.**—The regular meeting of the Northern Division was held at the residence of the President, Mr. H. R. Taylor, in Alameda, Cal., July 11, 1903, ten members and three visitors being present. Twelve candidates were elected to membership as follows: P. M. Silloway, Lewiston, Mont., Joseph Clemens, Monterey, Cal., Fred M. Dille, Longmont, Colo., Henry Stewart Gane, Santa Barbara, Cal., Mrs. Juliette C. Harding, Antioch, Cal., James S. Cooper, Hayward, Cal., Wm. Frederick Bade, Berkeley, Cal., Miss Ida M. Eshenberg, Santa Barbara, Cal., Herman T. Bohlman, Portland, Ore., H. H. Sheldon, San Francisco, H. H. Bailey, San Francisco, J. S. Hunter, Watsonville, Cal.

Three new names were proposed for membership: Miss Gertrude B. Forrester, Round Mountain, Cal., Foster C. Wright, Los Angeles, Cal., Prof. F. E. L. Beal, Washington, D. C.

The resignation of Mr. Chas. R. Keyes from the office of Secretary of the Cooper Club was read and accepted by unanimous vote of the members present; a vote of thanks and expression of regrets was extended to Mr. Keyes by the Club and the Secretary pro tem instructed to correspond with Mr. Keyes to that effect. Mr. Kaeding was elected secretary of the Club for the unexpired term of Mr. Keyes, resigned.

Mr. Kaeding spoke on the subject of vernacular names of birds vs. the Latin names, and made a motion that in all matter published in THE CONDOR, the vernacular name, when given, be followed by the Latin name of the bird. The motion was carried and the Secretary pro tem was instructed to notify the editor of THE CONDOR to that effect.

Mr. Emerson then spoke at some length on, "The Bird-life on the Farallone Islands," comparing the aspect of the islands as they were in 1887 with the present conditions, and discussing the probable causes of the decrease in certain of the species and the increase in others. Mr. Kaeding made a few remarks on the impressions made by a first visit to these islands. Mr. Cohen spoke on the "Blackbirds of Alameda County," illustrating his remarks with a series of specimens. Prof. F. E. L. Beal spoke briefly on the work being done by the Dep't of Agriculture on the foods of birds and their relation to agriculture and horticulture.

After a recess for refreshment and informal discussion, the meeting adjourned to meet in Palo Alto, September 12.—H. B. KAEDING, Secretary.



## THE CONDOR

An Illustrated Magazine of Western  
Ornithology

Published Bi-monthly by the Cooper Ornithological Club of California

WALTER K. FISHER, Editor, Palo Alto  
JOSEPH GRINNELL, Business Manager and  
Assistant Editor, Pasadena  
FRANK S. DAGGETT, Associate Editor

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### EDITORIAL NOTES

Subscribers are requested to note that the address of the BUSINESS OFFICE has been changed, as published in the last issue. Hereafter, subscriptions, dues, requests for sample copies, and advertisements should be forwarded to JOSEPH GRINNELL, PASADENA, CAL. Other communications should be sent, as usual, to the EDITOR at PALO ALTO, CAL.

Now that the time is approaching when the A. O. U. Committee on Bird Protection will assail the legislatures of still unconquered states with its "model bird law," it is perhaps opportune to voice a rapidly growing sentiment against one objectionable feature of this measure.

If we mistake not the A. O. U. Bird Bill provides that everyone who wishes to secure a permit to collect non-game birds (or even to have them in his possession) for scientific purposes must first furnish bond to the amount of \$200, besides paying a fee for the procuring of a permit. In other words if we wish to go over the border from our free state into Oregon, for a week's collecting, we must first spend \$5.00 or so in hard cash and some two weeks in good time negotiating with a Security Company for the bond. Then we are in a position to pay an additional fee for an *annual* permit, which makes it lawful for us to take a few little song sparrows or wren-tits to determine their particular race. Presumably this clause of the bill was introduced in order that the state might have some hold on the recipient of the permit. But if the latter ever transgressed his rights so far as to forfeit his bond, why would he not equally fall under the penalty of the law? As a matter of fact everyone knows that the bonds are a piece of red-tape and that no one issuing them runs a bit of risk. Why then make them a necessity when they serve no useful purpose, and are besides decidedly expensive, particularly to non-residents who may not

have any good natured friends to come forward? In Florida, for instance, it is not lawful for a Surety Company to go on such a bond, so that a visitor may have to do some soliciting before he can lawfully 'ornithologize.'

The particular "zeal" of the A. O. U. Committee on Bird Protection is made up of erstwhile collectors, who, we should think, would have an eye for the interests of their fellow scientists. Almost without exception it is a positive hardship to secure a permit to collect in states where the A. O. U. bill has been accepted, particularly in the case of non-residents.

All the hue and cry for bird protection is well enough in its place, but the better balanced ornithologists are already beginning to ask, "Where is *Ornithology* to come in?" In some states, Vermont for example where only three permits to collect can be in force at once, the matter has been carried to absurd lengths. In Virginia there is no provision for granting permits whatsoever, so that the ornithologists of Washington City must and do continue to collect unlawfully. And Washington is an "Audubonian" center! These two examples among others are mentioned to show that even in bird protection intemperance is possible.

Our objection is not to sane Bird Protection. We do think, however, that it is a little far-fetched when a recognized student of birds must be subjected to delay, annoyance, and highway robbery if he wishes to collect for his own purposes, or for those of the Government. As a prominent bird man recently said: "I would rather see 1000 birds killed through lack of laws, than have one promising Ornithologist discouraged through hardships imposed by arbitrary legislation."

Fortunately our own state is still free, and it is largely to this fact that its exceptional ornithological activity is due. We need a good bird law here, but we of the Cooper Club are not criminals and do not require to be bonded when we seek the festive song sparrow or chickadee.

The A. O. U. Bird Bill with its present un-American and objectionable bond feature is a menace to legitimate ornithological activity, wherever in force: take this feature away and it is a good law.

At the July meeting of the Northern Division it was voted that hereafter in Club publications, more particularly in THE CONDOR, vernacular names when used should be followed by the scientific name, the sense of the resolution being in every case to establish the identity of the bird beyond a doubt. In popular articles where many names occur the Editor would suggest that contributors append a list of species at the end of the article, as in Mr. Kaeding's paper in the present issue. A text cluttered with trinomial profundity is often bombastic quite beyond the remedy of the author.

In a recent examination for an important ornithological position, the following answer was given, by one candidate, to the question, "Define migration." "Migration is the importation of birds and mammals for propagation"!

SEPT., 1903 |

THE CONDOR

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A Magazine of Western  
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Volume V

November-December, 1903

Number 6



W.H.C.F.

COOPER ORNITHOLOGICAL CLUB



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**NESTS OF MEXICAN CORMORANTS, LAKE CHAPALA, JALISCO, MEX., DEC. 25, 1902**

# THE CONDOR A MAGAZINE OF WESTERN ORNITHOLOGY.



Volume V

November-December, 1903

Number 6

## Notes on the Mexican Cormorant

BY E. W. NELSON

**A**MONG the rugged cliffs and headlands of the Aleutian Islands I first saw cormorants in sufficient numbers to become familiar with their habits. The impression made at this time by the birds and their surroundings was so lasting that ever since their presence in a locality creates a sense of strange wildness that adds a peculiar charm to their haunts. Some of the species, however, live in situations quite different from the rude storm beaten crags overlooking northern seas where so many of them congregate.

The Mexican cormorant (*Phalacrocorax mexicanus*) is one of these dwellers amid milder surroundings. It is a wide ranging species wandering up the Mississippi Valley to southern Illinois and is found thence south to Central America, and even known to Cuba and Watling's Island in the Bahamas. In the intermediate area on the mainland they occur mainly along the coast lagoons from Texas south on the gulf coast, and from southern Sonora on the Pacific side of Mexico. From the lagoons they range up the larger rivers well into the interior. During our work in Mexico Mr. Goldman and I have become most familiar with them in the tropical and subtropical parts of the southwestern section of that country. Although they are found in the coast lagoons north to southern Sonora they are most abundant in these situations from Sinaloa southward. We saw them on the Balsas River and its tributaries in the heart of Michoacan and Guerrero, and they follow the Rio Santiago up through Jalisco to Lake Chapala, at 5000 feet altitude, on the southwestern border of the Mexican tableland.

From the distribution given, it is apparent that this is mainly a fresh or brackish water species in its mainland distribution, and Gundlach states that the few he saw in Cuba were found about fresh water.

Though mainly habitants of fresh and brackish water, to some extent these birds also frequent sea islands. The most notable instance of this kind that has come to my attention is that of Watling's Island in the Bahamas. There, on July 11, 1903, Mr. J. H. Riley of the National Museum found about fifty pairs breeding in the tall mangroves about a salt lagoon. The eggs were mostly hatched at that time and the young were in all stages of growth. Some of them, though not able to fly, had left the nests and were swimming about in the lagoon. The last of April, 1901, while Mr. Goldman and I were cruising around the shore of Yucatan in a small boat we landed for a short time on Contoy Island near Cape Catoche. Here we found many of these cormorants perched in the mangroves bordering some small salt lagoons, in company with white ibises and man-o'-war birds. In the trees were some old cormorant nests, all of which were unoccupied.

Last March we camped on a small river at the bottom of a deep canyon in central Michoacan; this stream runs a tortuous course between high rocky walls



LAKE CHAPALA, JALISCO, MEXICO, SHOWING LARGE BOAT ROOFED WITH RUSHES

and at short intervals breaks into foaming rapids. Our camp was on a narrow sandy flat at the water's edge, under the overhanging branches of some small unhogany and other trees that had secured a foothold in the talus at the foot of a cliff. As we lived here unsheltered except by the foliage, the happenings among the wild life of this solitary place were under constant observation. Among the interesting daily events was the passage up the river each morning of several Mexican cormorants, always flying singly, their glossy black plumage gleaming in the intense sunlight as they turned. They were evidently on their way to some fishing ground higher up, and several hours later—usually about midday—came back following, as in the morning, all the wanderings of the river and giving a touch of completeness to the wild character of the surroundings.

In the summer of 1897 we found them in abundance about the lagoons and streams of the coast country in southern Sinaloa, and especially at some shallow rapids in the Rosario River a few miles above the town of Rosario. During the early part of the rainy season the river was low and at the place mentioned a short descent in the boulder strewn bed of the stream made a stretch, forty or fifty

yards long, of brawling rapids. Every morning dozens of cormorants flew up stream to the rapids from the mangrove-bordered lagoons near the coast. They flew low along the water, sometimes singly and sometimes in small parties, usually keeping side by side in a well formed line when two or more were together. For a time most of them perched about on the numerous projecting stones in the river, preening their plumage and sunning themselves; others swam idly in the



NESTS OF MEXICAN CORMORANTS, LAKE CHAPALA

slow current about the rapids. At such times the brilliantly green masses of foliage bordering and often overhanging the water, the swift dark stream broken by jutting rocks on which were the numerous, black, sharply outlined forms of the cormorants, and overhead the crystalline depths of the morning sky of the rainy season made a wonderfully beautiful picture.

When a considerable number of cormorants had congregated they seemed to become suddenly animated by a common purpose and followed one another in swift flight to the foot of the rapids. There most of the assembled birds alighted and formed a line across a considerable section of the river. Then with flapping wings, beating the surface of the water into foam, the black line moved up stream, the birds showing much excitement but keeping their places very well. The surface of the water was churned to spray by the strokes of so many powerful wings and feet, yet in the midst of the apparent confusion the birds could be seen darting to one side or the other, or spurting a few feet ahead of the line, and sometimes disappearing for a moment below the surface but nearly always securing a fish. When they reached the head of the rapids the birds flew heavily to their perching stones or swam slowly up the quiet surface of the river. After a short rest the



YOUNG MEXICAN CORMORANT, LAKE CHAPALA, JAN. 8, 1903

line would reform and again beat up the rapids and this was repeated until the birds had satisfied their hunger.

The cormorants evidently fully appreciated the advantages of thus working in company, so that a fish trying to escape from one bird would almost certainly become the prey of another. The purpose of beating the surface of the water with their wings was evidently in order to alarm and confuse the fish so that they would dart blindly about and become more easily captured. I have seen parties of gannets doing the same thing in the midst of schools of fishes off the Tres Marias Islands.

When the cormorants were gorged they deserted the fishing ground for the day and streamed back down the river to the lagoons where they perched motionless for hours in large mangroves or other trees along the edge of the water.



The west coast lagoons are long lake-like bodies of brackish water varying greatly in size and proportion but nearly always fringed by a more or less dense growth of mangroves. These are low, rarely rising over twenty-five or thirty feet, and as the leafage begins at the water's edge they present a solid wall of dark green, back of which often rises the larger growth of scattered forests. Here and there among the mangroves occur dead and weathered trees, or lacking these, wide branching living trees which project over the water. These are favorite congregating places for the Mexican cormorants which, with their somewhat grotesque outlines, form a conspicuous figure of the bird life in such localities. These birds are not considered game by the Mexicans and this combined with the high price of ammunition, is sufficient to protect them from wanton killing so that they are not often disturbed and will permit a canoe to approach within easy gunshot before they clumsily take flight. They are heavy-bodied and awkward and frequently fall from the perch into the water and try to escape by swimming in preference to flight. When driven to take wing from such a perch they commonly make a broad circuit and returning pass near the canoe and turn their heads in evident curiosity to examine the cause of the alarm. Their flight like that of other cormorants is steady and rather labored, and as they circle about an intruder they often glide for some distance on outspread wings, turning their long outstretched necks toward the object of their curiosity and presenting almost as grotesque an appearance as the snake-bird.



MEXICAN CORMORANT ON NEST, LAKE CHAPALA

Although the cormorant had been familiar to me for a number of years, it was not until recently that I had the chance to learn anything of its breeding habits—and this to my surprise occurred on Christmas day, apparently a most unpropitious season to go bird nesting, even in the tropics, on this side of the Equator. On December 23, 1902, Mr. Goldman and I reached Ocotlan, Jalisco, a small town located on the Santiago River close to the point where it flows out of the northeastern corner of Lake Chapala. This lake, the largest body of fresh water in Mexico, is on the southwestern border of the tableland at an elevation of 5000 feet above the sea. In its greatest dimensions it measures about twenty by sixty miles. Its main tributary, the Lerma river, flows through extensive marshes into the eastern end of

the lake only a few miles from the outlet of the lake into the Santiago; the two sections of what is really the same stream thus, after Spanish fashion, bearing distinct names.

Our object in visiting this point was to learn as much as possible about the water-fowl which winter abundantly in the marshes bordering the east end of the lake and along the lower Lerma.

By invitation of an American in charge of a plantation near Ocotlan we embarked on Christmas day with our host and his wife in one of the large sail boats used for the commerce between the towns on the lake, for a trip to the mouth of the Lerma on a hunt for geese and ducks. The boat was large and apparently build on the model of a flat-iron with a thatched roof of rushes over the stern, and with such high sides that one could walk comfortably about on the flat bottom or climb up to the bow where a decked space covering the forward third of the boat gave a place where one could lie and watch the picturesque views furnished by the mountains which enclose the lake on nearly all sides. A large square sail caught the light breeze and drew us slowly away from shore and for some time I strained my eyes to but little purpose for signs of bird life. In the afternoon we reached the shore near the mouth of the Lerma and saw several species of herons and ducks about patches of rushes, and many cormorants were flying in pairs or in small parties drawn out in line and at a distance not easily distinguishable from geese. The cormorants were all headed toward a common point in the shallow part of the lake, beyond the mouth of the river, which our native boatmen assured us was their roosting place. The winter climate is delightful in this region and as Christmas night closed down we sat on the deck, while we drifted slowly along near the reedy shore, and watched the most brilliant display of stars come out as the rich afterglow faded away. In the intense blackness of the shoreline the cheerful twinkling of lights here and there marked the locations of villages and followed the tolling of the vesper bells that came to us, mellowed by distance, at twilight. There were no signs of the expected geese but from time to time the voices of other waterfowl arose on the adjacent marsh, exciting pleasant anticipations for the coming day. With some reluctance we left the beauties of the night and sought our blankets. Just as we were drifting into forgetfulness a medley of clanging notes awoke us and we heard a flock of white-fronted geese (*Anser gambeli*) settle near us in a pond on shore.

The next morning several flocks of geese left the ponds in the vicinity soon after daybreak and a large number of cormorants dispersed from the part of the lake where they had gathered the evening before. All day until the middle of the afternoon we poled about in the shallows at this end of the lake among patches of reeds and marsh grass with stretches of open water between and were very successful in securing numerous species of waterfowl. In the afternoon a long line of whitened bushes growing in the open water some distance away was pointed out by our host who said he had passed there a short time before and found a lot of cormorants nesting in them. I could scarcely credit this but the whitened appearance of the bushes showed that the birds used the place as a roost at least and I decided to investigate. As we poled near enough we saw that the bushes, or small trees which projected twelve or fifteen feet from the water were full of cormorants and many could be seen standing on nests. We stopped the boat when within one hundred yards and after removing our clothing slid cautiously overboard into from three to four feet of water. Camera in hand Goldman and I stalked the birds to within about forty yards and secured a few exposures. The

bushes extended in a narrow belt for about two hundred yards in the otherwise open water and in them were perched between two to three hundred birds. At our first stop the outstretched necks and changing position of some of the birds gave evidence of their uneasiness and as we waded still nearer most of them flew clumsily down into the open water. After moving out a hundred yards beyond the line of bushes they formed a black line on the water where they remained as long as we stayed in the vicinity. When the birds became alarmed at our approach they began a curious guttural grunting which came in a low continuous chorus from those left in the bushes as well as those in the water. These notes sounded much like the low grunting of a lot of small pigs while feeding. As we waded among the bushes the birds which had remained by their nests pitched off into the water one after the other and swam out to join the main flock; or took wing, and after a short detour, came circling close overhead, uttering at short intervals their guttural notes of alarm or protest.

The nests were strong platforms placed on forking branches and measured about fifteen inches across and four to six inches deep with a shallow depression in the top. They were composed entirely of small sticks compactly arranged as is shown in detail in the accompanying photographs. From one to half a dozen nests were placed in a bush and we planted our tripods in the muddy bottom and standing nearly waist-deep in the water secured good pictures before calling up the boat and getting abroad. As the bushes were scattered we had no trouble in poling about and examining the nests at leisure. Most of them were just completed and contained no eggs. Quite a number had a single egg and in a few cases two eggs were found. A series of eighteen eggs were taken. They are rather small for the size of the bird and have a pale green ground color overlaid with the usual chalky white deposit which gives them a greenish white shade.

Three eggs representing the extremes of variation out of this series measure respectively (in millimeters) 55.4 by 33.2; 52.2 by 41.6 and 53 by 34.3.

After finishing our inspection of the nests we returned to the large boat so late that the day breeze failed and left us drifting about the lake all night and prevented our reaching town until late the following day.

On January 5, 1903, we made another visit to this nesting place and with the exception of a single young bird recently hatched the nests of the entire colony were absolutely empty, so it was evident that the place had been deserted as the result of our former visit. Instead of between 200 and 300 birds which we saw on our first visit not more than fifty were seen this time.

The water in the lake and river was unusually low this season which may account for the presence of this unexpected colony, for the native fishermen agreed in saying that these birds only nest in some trees far up the lake shore, and sometimes in large willows along the marshy borders of the Lerma near its outlet in the lake. However that may be, it was a stroke of good Christmas luck that we made this find since the nesting habits of this species appear to be practically unknown so far as I have found in published accounts of the species.

## On the Use of Sentinels by Valley Quail

BY JOHN J. WILLIAMS

**B**EFORE taking up the discussion of this question "Do valley quail use sentinels?" I wish to say that although I am seriously inclined to think that quail do use sentinels, yet further observations by others may throw a different light on the subject, so that under these circumstances I prefer to leave the question open.

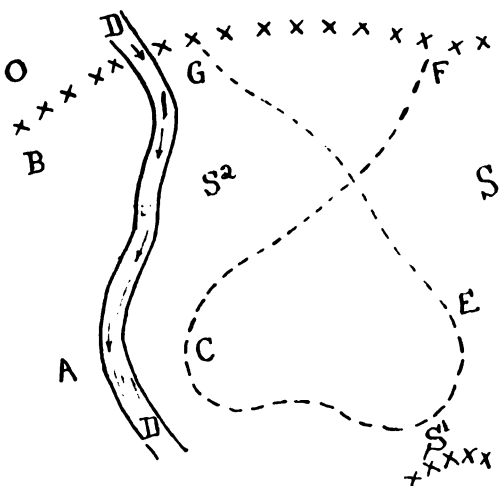
Should any one feel like taking up the study of birds, his ardor is usually dampened at the outset somewhat by the large amount of time and patience it requires to do so. But should any one be inclined to study valley quail (*Lophortyx c. vallicolus*) in particular, after the first attempt there is very little inclination left to do so. Out of all of our common birds they are the most easily frightened, "Eternal Vigilance" evidently being their motto, but of all our common birds they are perhaps the most interesting, especially in their habits. The rustling of a dog, the snapping of a twig, or the distant report of a gun, serves equally well to put them on guard or start them on the wing.

Even the wavering leaf has caused me into the nearest all that a detailed of valley quail will time put on it. intention of fath- and (to me) un- of these birds, that spring of 1901 for in the foothills of There I felt sure quail, and in fact retreat for the of birds. As a follows is depend-

ough knowledge of the location, I have given in the sketch a general idea of the spot. BF represents the brush fence cut in two by a wide irrigation ditch, DD. At A on the lower bank of the ditch, among some shrubbery screening me from view partially, I chose my hiding place, getting into as good and comfortable a position as possible, for once I got settled I knew it was for an hour or more and half of that time I would have to be absolutely motionless. No note book was needed, and all the notes I took would have to be taken in my head, for a true valley quail dislikes the publicity of a written interview and despises reporters.

Soon from the hillside above the brush fence, I heard their call notes, coming nearer and nearer and answered from different points on the hillside, indicating that the clan was gathering for its feed in the old apple orchard at O in the sketch. Suddenly after some little quietness one of them appeared at F and ran rapidly to the point marked S where he flew up onto the lowest branch of a dead peach tree.

I began to get interested and put the glass on him, although he was only about ninety feet from me. He was thoroughly alert and business-like and was scrutinizing his surroundings as minutely as a nuthatch would the bark of a tree.



After a few minutes of the closest inspection, he repeated the note "cuh" several times slowly in a low guttural tone, perhaps to tell his mates that the coast was clear. Nothing in his actions had appeared to me extraordinary, as I have frequently seen one lone quail perched in full view, when I have been hunting.

Soon after he had uttered the low notes, I noticed several quail coming out from the brush fence at different points near where the first one had, but the most noticeable thing about their advent was that they were perfectly fearless, slowly walking around picking up gravel or eating grass and clover leaves. Some were even fluffing out their feathers or scratching their heads with their claws, while two lazy ones rolled over on their sides and had a dust bath. None of them were alert and to see them there an observer would believe that hawks and men never existed to torment them. Gradually they kept on coming through the brush fence until I counted thirty-seven in the bunch.

All this time the lone bird at S had remained intensely alert but silent; not even the rippling conversational notes of his mates (which sound so much like the gurgling of a tiny stream in its rocky bed) had disconcerted him. With my glass I could see his brown eye roving everywhere, now up, now down, never apparently longing for the clover his mates were eating but always watchful. The contrast between this lone bird so alert and his fellows close by, free and light-hearted, as if they were out on a vacation, was a puzzle to me.

Slowly the bunch moved forward in the direction of the dotted line in the sketch, now widely separated only to gather closer together a little farther on, all the time with most of their plumed heads bent low among the clover roots, seeking their favorite dainties the clover seeds, while now and then a few would linger behind, taking a bath in the warm dust.

Overhead a few fleecy clouds drifted lazily across the sky, and occasionally the lightest breeze shook out the crimson tassels of the budding oaks, or passed silently across the swirling waters of the ditch. All the world seemed at peace. Numerous insects droned in harmony from everywhere and the quail still moved along.

When they reached the point C in the sketch, one of their number ran to the point marked S<sup>1</sup> and perched himself on the top of a large pile of brush at that point. This was done silently and without any note or call from the lone bird or from any of the feeding birds, only the low murmuring notes of the flock breaking the silence, as they slowly followed along the course indicated by the dotted line in the sketch. After a few minutes the quail in the dead peach tree quietly joined his mates on the ground, while the bird on the brush pile remained alert and almost motionless.

Probably a quarter of an hour had elapsed between the appearance of the first and second watchful birds at their post. At the point C the flock was only twenty-three feet from me by actual measurement, the ditch intervening between us. From this point they slowly worked up the hillside through a lot of tall dead weeds, close to the brush pile at S.

Far off on the edge of the woods the resonant drumming of a woodpecker came to me faintly, while the scream of a quarrelsome blue jay caused the lone quail to move his head quickly in that direction.

About this point the birds curved their course back towards the brush fence and I began to wonder whether some other bird would repeat the previous peculiar actions, which by this time began to have an appearance of design and not mere chance, but no such thing occurred and the bunch moved forward quietly for some few minutes until they came to the point marked E in the sketch, where

a single bird separated quietly from the flock, and running to the foot of a fence post at S<sup>2</sup> reached the top by a short flight. At this point of my observations I became very much interested, anxiously waiting for the lone bird at S<sup>1</sup> to rejoin the flock, as proof of my theory that the whole performance was prearranged and intentional, and not of an accidental nature, and after a minute or so the bird quietly did so.

To say the least I was delighted, for here was something worth following up. That these birds were schemers, I had had to previously acknowledge after many a hard day's unsuccessful tramp after them, but to find out that they had a well organized system of protecting themselves while feeding out in open ground was an eye-opener.

From E they followed the dotted course, crossing their original line of travel and moving slowly, finally disappeared into the brush fence at G on their way to the old apple orchard. After some little time the lone quail at S<sup>1</sup> also left his post and was lost to sight with the rest of the bunch.

My initial interview with the valley quail in their own homes had proved successful beyond my expectations and I had been able to keep close track of all their movements and that too when they were some distance from any shelter.

Such ideal conditions for observation and study do not always occur and the wonder was that there was not some kind of an interruption.

That the facts of the case were just as stated and not mere guess work on my part, I have proved several times since then, sometimes by accidental observations and sometimes by a good deal of perseverance, and only as recently as January 25th, of this year, I watched a flock of valley quail slowly pass through a small orange orchard up in one of the Santa Barbara canyons, in their course crossing a country wagon road in perfect unconcern, while a lone quail on the top of a fence-post "sentinelized" the procession from his position.

These tactics are adopted only when the flock wishes to feed or pass through some more or less open piece of ground, I believe, for although I have watched them repeatedly when they were in the timber, I have never yet seen them put out a sentry.

The most frequent instances in which I have noticed this sentinelizing has been when they were feeding or dusting themselves along a much used road, for in other cases where cover is close at hand they seem to rely on it more, but during the mating season I have had female quail come within ten and once within five feet of me, fearlessly looking under or into old logs or brush heaps for a possible nesting place, while the male bird perched on an uprooted stump or log and kept the keenest kind of a gaze on me, from his position thirty or more feet away from me.

Under such conditions of observation the observer must become like the stone or tree against which he rests motionless, and this is why I said in the first place that a student of valley quail must put up with a great deal, but in the end he is amply repaid for the time and trouble he has been put to.

Whether the male bird alone acts as sentinel I am unable to say, and leave it to future study, but hereafter when you see one quail perched alone and in full view, you can be sure that in most cases the flock is close by, so don't shoot him because he is such an easy mark.

In regard to this habit seen in other kinds of game birds, I have no knowledge, but although I have studied our mountain quail (*Oreortyx p. plumiferus*) a great deal, I have never come across anything that would indicate the occurrence of this habit in the species.



## A List of Birds Observed in Cochise County, Arizona

BY WILFRED H. OSGOOD

(Concluded)

**Spizella breweri.** Brewer Sparrow. Found in company with the preceding species but in fewer numbers.

**Junco hyemalis.** Slate-colored Junco. One specimen was shot in the corral Dec. 30, being the only Junco seen in the valley. On February 3, in the Dragoon mountains I took another with sides slightly pinkish.

**Junco mearnsi.** Pink-sided Junco. Common in winter in all the mountainous country.

**Junco connectens.** Shufeldt Junco. Abundant. Flocks of several species were always seen in the Dragoons in winter.

**Junco caniceps.** Gray-headed Junco. Found with the preceding but not quite so common.

**Amphispiza bilineata.** Black-throated Sparrow. First taken April 28 after which it rapidly became the most common bird of the mesquite district. I found a half-dozen of their nests containing sets of three eggs each May 20. Nests were placed in small mesquites from 4 to 20 inches from the ground.

**Amphispiza belli nevadensis.** Sage Sparrow. The sage sparrow was very common during the winter months. Seen in flocks about the leafless mesquites till about the middle of March when it was replaced by *Amphispiza bilineata*.

**Aimophila ruficeps scotti.** Boucard Sparrow. One was seen April 18. I stood within six feet of it as it skipped through a mesquite but I had no gun and could not secure it.

**Melospiza melodia montana.** Mountain Song Sparrow. One taken at Sulphur Spring March 16.

**Melospiza lincolni.** Lincoln Finch. One taken at Sulphur Spring March 16. No others were seen.

**Pipilo maculatus megalonyx.** Spurred Towhee. A fairly common resident in the Dragoon and Chiricahua mountains.

**Pipilo fuscus mesoleucus.** Canyon Towhee. Common in the mountains. Eggs far advanced in incubation were found May 1.

**Oreospiza chlorura.** Green-tailed Towhee. Very common in the Dragoon mountains about May 1. Seen also in the valley where the first specimen was taken April 23.

**Zamelodia melanocephala.** Black-headed Grosbeak. A few stopped in the cottonwoods May 18 and others were seen in the Dragoon mountains later.

**Guiraca caerulea lazula.** Western Blue Grosbeak. Seen only in the Chiricahua mountains.

**Calamospiza melanocorys.** Lark Bunting. Several flocks wandered about the valley and occasionally appeared about the ranch where I secured a number of specimens.

**Piranga ludoviciana.** Western Tanager. First taken May 18; afterwards seen sparingly among the mesquites near the house at Allaire's.

**Piranga hepatica.** Hepatic Tanager. Taken in the Dragoon mountains May 4.

**Piranga rubra cooperi.** Cooper Tanager. A young male taken May 18 was the only one seen.

**Tachycineta bicolor.** White-bellied Swallow. Found in numbers in the Dragoon mountains May 4. No specimens taken.

**Stelgidopteryx serripennis.** Rough-winged Swallow. Several swallows supposed to be this species were seen April 8.

**Lanius ludovicianus excubitorides.** White-rumped Shrike. Abundant; frequently seen perched on the topmost twig of a mesquite. Several sets of five eggs were taken in April from nests a few feet above the ground in mesquite and catclaw bushes.

**Vireo gilvus.** Warbling Vireo. Quite common after May 3 when the first was taken.

**Helminthophila celata lutescens.** Lutescent Warbler. One taken in the Dragoon mountains May 4.

**Dendroica auduboni.** Audubon Warbler. Seen occasionally through the winter and spring. Several were taken.

**Dendroica nigrescens.** Black-throated Gray-Warbler. Several were seen in the cottonwoods near the ranch, April 15. Later they were seen in the brush and May 4 a number were taken in the Dragoon mountains.

**Dendroica townsendi.** Townsend Warbler. Five specimens were taken in the Dragoon mountains May 4.

**Dendroica occidentalis.** Hermit Warbler. Taken in the Dragoon mountains May 4.

**Geothlypis tolmiei.** MacGillivray Warbler. Taken near the house at Allaire's May 3. Later it became common in the brush and in the Dragoon mountains where several were taken.

**Geothlypis trichas occidentalis.** Western Yellowthroat. One taken March 16, occasionally seen later.

**Wilsonia pusilla pileolata.** Pileolated Warbler. Seen in the cottonwoods near the house April 15. Later it became the most common warbler.

**Anthus pensilvanicus.** American Pipit. One was taken at Sulphur Spring March 16 and on my next visit, March 23, quite a number were seen.

**Oroscoptes montanus.** Sage Thrasher. The sage thrasher was not uncommon through the month of April but previous to that time it was rarely seen.

**Mimus polyglottos leucopterus.** Mockingbird. The song of the mockingbird was first heard on the morning of April 15. From that time on it was a source of constant pleasure.

**Toxostoma bendirei.** Bendire Thrasher. One taken April 8 and one April 17 were the only specimens seen.

**Toxostoma crissale.** Crissal Thrasher. Quite common. I found a nest April 3 containing two rotten eggs, at which I was surprised, as I had thought it too early for eggs. Three days later on the 6th, however, I shot a young bird just able to fly which confirmed the suspicions aroused on the 3d. Fresh eggs were taken after this, April 8, 11, 15 and 20.

**Heleodytes brunneicapillus.** Cactus Wren. A pair reared a brood of young in a nest placed in a hole in the corner of an old house. These were the only cactus wrens seen though quite a number of their conspicuous nests were noticed in the chollas and mesquites.

**Salpinctes obsoletus.** Rock Wren. A single specimen was taken near the house at Allaire's April 23, being the only one seen in the valley. In the Dragoon mountains, they were abundant in suitable places.

**Thryomanes bewicki bairdi.** Baird Wren. Quite common.

**Troglodytes aedon aztecus.** Western House Wren. Rather rare; a few were seen but none taken.

**Cistothorus palustris plesius.** Western Marsh Wren. Taken at Sulphur Spring March 16 at which time they were abundant.

**Sitta carolinensis aculeata.** Slender-billed Nuthatch. Abundant in the the mountains, but none seen in the valley.

**Parus wollweberi.** Bridled Titmouse. Common resident in the mountains where they frequent the oak woods. Many were taken in the Dragoon and Chiricahua mountains.

**Psaltiriparus plumbeus.** Lead-colored Tit. Very common in the Dragoon mountains where it was generally seen with the preceding species.

**Regulus sp.** Kinglet. A few females were seen in the Dragoon and Chiricahua mountains.

**Poliophtila cærulea obscura.** Western Gnatcatcher. First seen March 17; occasionally met with later.

**Myadestes townsendi.** Townsend Solitaire. Found in the Dragoon mountains in winter.

**Hylocichla guttata auduboni.** Audubon Hermit Thrush. One was taken in the Dragoon mountains April 14. A few others were seen on the same date.

**Merula migratoria propinqua.** Western Robin. Common in the Dragoon mountains.

**Sialia mexicana bairdi.** Chestnut-backed Bluebird. Common but less so than the following species, with which it was associated.

**Sialia arctica.** Mountain Bluebird. In winter large flocks were seen in the mountains and occasionally in the valley.

### Notes on the Texan Jay

BY HOWARD LACHEY

ON buying a small ranch in Kerr county, Texas, in the summer of 1882, and stocking it with a few cows and other domestic animals, I began to spend my spare time in studying the habits of the wild creatures that I met, and at first gave nearly all my attention to the birds of the neighborhood. Not finding anyone else who took much interest in such things, I bought Coues' Key to North American Birds, and with this and a shot gun I by degrees learned the names of most of the birds that I saw as I rode about the range. I dislike having to use the gun, so I made a point of making a rough skin (a very rough one indeed at first) of everything that I shot and could not identify.

In 1893 I was fortunate enough to make the acquaintance of the "professor" who was then living in San Antonio, with whom I have since taken many pleasant little excursions, and between us we got to be on familiar terms with most of our bird neighbors. One of the birds that I could not place was our common jay, now known as the Texan jay (*Aphelocoma texana*).

In December, 1894, when deer hunting on the head of the Nueces river, I shot and skinned one of these birds and sent it to the professor. He sent it on, I believe, to the late Captain Bendire, and it is now the type of the species. In

March, 1896, I heard that the jays were nesting on the ranch of a friend about sixteen miles north of my place, so I rode over there and on March 29th and 30th found several nests and took four or five sets of eggs. These were carefully packed in an old cigar box and stowed away in one of the saddle pockets, but unfortunately as I was taking a rest and a lunch on my way home, the horse shook himself and of course the saddle also, with the result that most of the eggs were broken.

In 1898 the professor arranged to visit this same ranch with me, and on April 4th we started in an old buckboard and had a fairly successful trip, getting some good specimens of the birds and several clutches of eggs. The ranch is situated at the head of one of the main branches of the Guadalupe and takes in some of the divide between that river and the Llano. As in other parts of the county the limestone rocks are in evidence everywhere. Numerous little valleys run down toward the rivers, becoming deeper and steeper as they approach the larger creek, and often forming narrow canyons with high bluffs on both sides. Large trees are not numerous, but the whole face of the country is covered with clumps of shin oak and scrubby live oak. In these clumps we found the jays' nests, generally placed near the outside of a thicket, at from four to six feet from the ground, and often conspicuous from quite a distance, as the shrubs were only beginning to put out their leaves at that time. As a rule the birds were setting and one nest contained young nearly ready to leave it. The nests were composed of an outer basket of twigs not very firmly put together, and lined rather neatly with grass, hair, and small root fibres. They were rather more bulky than mockingbirds' nests and the inner nest was saucer shaped rather than cup shaped. Most of them were placed in the shin oaks, but some few were in live oaks, and I have since found several in cedar bushes. The birds are not so noisy as the common blue jay and are particularly silent when near their nests. They have a habit of hopping upwards through a thicket from twig to twig until they arrive at the top of it, when they fly off with four or five harsh squeaks to the next clump of brush, into which they dive headlong. It was a very warm day with the thermometer in the shade of the gallery at the ranch standing well up in the nineties, and tramping about through the thickets and picking our way over the rocks was by no means light work, but the walk was so interesting that we did not have time to think of getting tired. Of course we found much to interest us besides the jays. An untidy platform of sticks in a small Spanish oak tree, proved on investigation to be a road-runner's nest, containing six eggs, which from their unusually clear appearance, were probably all of them fresh. One frequently finds eggs in different stages of incubation in a road-runner's nest and sometimes eggs and young birds or young birds of different sizes.

Several times we disturbed deer. They were in their fresh summer suits of red, having already discarded their gray winter overcoats. As is so often the case when one is not hunting them, they would stop to take a second look at us, offering pretty broadside shots at fifty or sixty paces. In one extra dense thicket at the head of a rough little hollow we found a pair of long-eared owls (*Asio wilsonianus*) the first we had ever seen in the county; and on a rocky ridge just beyond were a couple of burrowing owls. They flew a few yards and then settled on some rocks, nodding their heads at us in their usual ludicrous fashion. These owls do not breed in this county, but we see them every year in the spring and autumn. There are no prairie dog towns on this side of the Llano river, but plenty of them just across it and I have been told that the owls breed over there.

Many small flocks of migrating birds were seen, some of them just arriving for the summer and others getting ready to leave us. Conspicuous among the

latter were the crown sparrows and lark buntings, the male buntings already about half clothed in their striking summer plumage.

Large trees were rather scarce on the divide and were not very large there except by comparison. They were principally isolated live oaks or black-jacks and most of them contained nests of the red-tailed hawk, usually old and deserted, but the new ones already contained either eggs or young birds. Of course all the hollow trees we saw had to be closely inspected and in one old stump we found a large pole cat peacefully taking his siesta. We had a good look at him but were very careful not to disturb his slumbers. He belonged to the white-backed, bare-nosed species and appeared to be very fat, also, fortunately for us, very sleepy.

In the winter the Texan jays are generally in small parties of four or five individuals, family parties probably. In the winter of 1896-1897 when large numbers of the common eastern blue jay (*Cyanocitta cristata*) visited us, and it was not uncommon to see flocks of from fifty to one hundred of them, our native jays did not mix with them but wandered about in their usual small flocks. These flocks, however, were far more numerous than they have ever been since. Probably a heavy crop of shin oak acorns in this neighborhood and a failure of the mast in other places, attracted the birds of both species. I have not seen the eastern jay here but once before; in 1887 they were very plentiful. They remained until the middle of April on both occasions, but none of them stayed here to breed.

### A List of Birds from the Santa Cruz Mountains, California

BY MALCOLM P. ANDERSON AND HUBERT O. JENKINS

**D**URING the Christmas holidays of 1902-03 the writers made a ten days trip from their homes in Santa Clara Valley, California, to the sea, a distance of twenty-five or thirty miles. At that time recent rains had made the mountain road very bad so our first day, and half of the second, was spent in reaching San Gregorio Creek, a stream on the western slope of the coast range. Here near the village of La Honda we camped several days on the bank of the stream in a deep cold canyon. This canyon runs east and west at this point, so the sun which rose to us about nine, lingered just above the crest of the southern mountain until near four in the afternoon. The northern slope of the canyon thus received some warmth, but the southern and densely wooded side, little or none. For this reason, no doubt, the upper parts of the northern side have been cleared and were then in use as pastureland while the original forest, except some of the largest redwoods has been preserved on the southern side.

The most prominent forest tree in the neighborhood is the redwood (*Sequoia sempervirens*), but many Douglas spruces (*Pseudotsuga taxifolia*) occur, and the undergrowth is very dense. This consists largely of several species of oaks (*Quercus*), the tan-bark oak (*Quercus densiflora*), the buckeye (*Æsculus californica*) and the poison oak (*Rhus diversiloba*). San Gregorio creek, like all streams of this portion of the coast range is lined with alders (*Alnus oregana*), and the California laurel (*Umbellularia californica*) occurs on the banks as well as on the damp hillsides high above the stream. About two miles west of La Honda or eight miles from the coast the redwood forest ceases quite abruptly, giving place

to a country bearing a few oaks, and below this is a land still of a hilly character which has no trees, except along the streams and where they have been planted by man.

After we had spent several days at work in the redwoods we proceeded down San Gregorio creek to the coast where we camped on the beach at the mouth of the stream. About a mile from its actual mouth and just below the village of San Gregorio, the creek forms a lagoon some fifty or sixty feet wide and flows thus, slowly to the ocean. Ordinarily the water of this lagoon is perfectly fresh but at the highest tides the sea must enter for some distance. The banks of the upper portion of this calm water are grown with willows (*Salix lasiolepis*) and a dense tangle of brambles, but nearer the ocean there is a tule marsh of some extent. Except at the stream's mouth the shore is a line of bluffs for the country preserves its hilly character to the very coast.

The following list lays no claim to being exhaustive, as will plainly appear. It is merely a list of the birds we saw and obtained on our outing.

**Aythya marila.** Scaup Duck. Several males were found in the lagoon at San Gregorio.

**Erismatura jamaicensis.** Ruddy Duck. Noticed frequently upon the lagoon.

**Fulica americana.** American Coot. Very common upon the lagoon. Large flocks were seen feeding upon green grass on the shore.

**Lophortyx californicus.** California Quail. Abundant in the underbrush everywhere.

**Falco sparverius phalaena.** Western Sparrow Hawk. A number of these birds were seen in the open fields between La Honda and the coast.

**Bubo virginianus (saturatus?)** Horned Owl. At La Honda two were heard hooting in the redwoods at dusk.

**Ceryle alcyon.** Belted Kingfisher. A kingfisher was often seen flying along the creek near our La Honda camp.

**Dryobates villosus hyloscopus.** Cabanis Woodpecker. An individual seen in a redwood near La Honda.

**Melanerpes formicivorus bairdi.** California Woodpecker. Seen working on dead redwoods at La Honda where they were common.

**Sayornis saya.** Say Phoebe. Three specimens of the Say phoebe were collected and others were seen in the fields about San Gregorio.

**Sayornis nigricans semiatra.** Black Phoebe. Very common in the fields near the coast and along the road between the redwoods and San Gregorio.

**Cyanocitta stelleri carbonacea.** Coast Jay. This jay was common at La Honda, where it frequented the redwoods largely.

**Aphelocoma californica.** California Jay. California jays were common on the outskirts of the redwood forest.

**Sturnella neglecta.** Western Meadowlark. Meadowlarks were common along the San Gregorio road below the redwood forest.

**Astragalinus psaltria.** Arkansas Goldfinch. A flock of gold finches was seen in a buckeye on the road to San Gregorio. One specimen was taken.

**Ammodramus sandwichensis alaudinus.** Western Savanna Sparrow. These sparrows were common in the pastures near the coast.

**Ammodramus sandwichensis bryanti.** Bryant Marsh Sparrow. At San Gregorio one of these was taken near a pond on a hill and another in the brush on the bank of the lagoon. No others were observed.

**Zonotrichia leucophrys nuttalli.** Nuttall Sparrow. Nuttall sparrows were



everywhere abundant at San Gregorio; the specimens taken were well marked. No *gambeli* were found.

**Junco hyemalis pinosus.** Point Pinos Junco. One junco was secured near La Honda and a large flock was seen on the roadside just out of the redwood forest.

**Melospiza cinerea santæcrucis.** (Grinnell) Santa Cruz Song Sparrow. We found song sparrows common among the tules at the mouth of the San Gregorio creek. They were noticed particularly at dusk.

**Melospiza lincolni striata.** Forbush Sparrow. Two species were shot, one in bushes on the shore of the lagoon and one on top of a hill not far distant.

**Passerella iliaca meruloides** (Vigors). Yakutat Fox Sparrow. We obtained a single specimen of this bird at San Gregorio. It was shot while perched upon the dead stalk of a weed on a bare hillside.

**Pipilo maculatus falcifer** McGregor. San Francisco Towhee. This towhee was heard and seen along the creek at La Honda.

**Pipilo crissalis.** California Towhee. Abundant along the road between the border of the redwoods and the village of San Gregorio.

**Lanius ludovicianus gambeli.** California Shrike. The California shrike was a fairly common bird in the open country between the edge of the forest and the coast.

**Dendroica auduboni.** Audubon Warbler. A few Audubon warblers were seen in trees and bushes in the valley of San Gregorio creek.

**Anthus pensilvanicus.** American Pipit. Pipits were common in plowed fields on the coast.

**Cinclus mexicanus.** American Dipper. Three dippers were taken on the creek near La Honda.

**Thryomanes bewicki spilurus.** Vigors Wren. Several Vigors wrens were noticed among fallen logs and underbrush in the canyon of the creek near La Honda.

**Olbiorchilus hiemalis pacificus.** Western Winter Wren. Winter wrens were less commonly seen than Vigors wrens. One specimen was taken near La Honda.

**Parus rufescens barlowi.** Santa Cruz Chickadee. Several flocks of chickadees were seen flying among the redwoods.

**Chamæa fasciata.** Wren-tit. Wren-tits abounded in the underbrush of the redwood forest.

**Regulus calendula.** Ruby-crowned Kinglet. Abundant at La Honda where it was especially noticed about laurel trees.

**Regulus calendula grinnelli.** Sitka Kinglet. One specimen of this bird was taken in a clump of young redwoods near La Honda.

**Hylocichla guttata nana.** Dwarf Hermit Thrush. A very common bird at La Honda.

**Hesperocichla nævia.** Varied Thrush. Large numbers of varied thrushes were seen at La Honda.

## The Rocky Mountain Screech Owl in Larimer County, Colorado

BY W. L. BURNETT

THIS owl (*Megascops a. maxwelliæ*) is quite a common resident in suitable places throughout the greater part of the county, extending into the mountains to about 7000 feet, but it reaches the height of its abundance along the foothills. To visit the haunts of this bird one has to follow the wooded streams, and as they lie off the usual course of travel, *M. a. maxwelliæ* is unfamiliar to all but naturalists. Altho usually nocturnal, they are frequently met with in the day time. You often see one napping on a limb close to a tree trunk, and when disturbed it seems to suffer little inconvenience by the glare of the day.

These creatures make their homes in hollow cotton-woods, box-elders and willows, and you can always locate them by the pellets which lie around. From the nature of the material and from what stomachs I have examined I think their principal food is mice, which are abundant. I am satisfied they do not nest in the same cavities they use for a winter home, as I have for several years made the rounds in winter and marked the inhabited trees, but not in a single instance have I found eggs in the marked trees. They sometimes appropriate the abandoned nests of the American magpies. Their eggs are not easily taken as the following account of a collecting trip will show.

In company with Mr. F. M. Dille we left Fort Collins one morning about eight o'clock, followed the Cache La Poudre river on the south side as far as Bellvue and returned on the north side, arriving home about three o'clock. After eating a lunch we went down the river (south) returning at eight o'clock p. m. with only two sets for the day's work, after covering about sixteen miles of timber. One was a set of four, badly incubated, the other of five eggs, nearly fresh, and as handsome a set as I ever saw. They were white and clear, while the four were very much nest stained.

What pleasant memories those collecting trips leave. As I am writing this, altho several years have passed, I can again see the nesting cavity, in which we took our set of four, in a cotton-wood tree which was leaning over a shallow pool, where minnows flashed their silver sides in the sunlight. Our set of five was found in a willow stub. I can still hear Dille making his great speech about how destructive *M. a. maxwelliæ* were to poultry. The cause of this burst of eloquence was the sudden appearance of a ranchman exclaiming, "What are you doing there?" just as I had made the important discovery that the nest contained five eggs. Almost invariably the nesting cavities are on the under side of a limb and we made several difficult climbs with the aid of a lariat rope.

That these owls sometimes become bold when driven by hunger, the following episode will show. There had been a week or two of severe weather, with about ten inches of snow on the ground. We had a pet canary hanging at the dining room window. One evening we were startled by a crash against the pane. There seemed to be a whitish object without, and on investigating we found the cause of our alarm to be a screech owl, attempting to reach the canary, for a meal. He was very persistent and repeated his attempt at frequent intervals until the light was removed from the room.

## The Santa Cruz Island Vireo

BY JOSEPH GRINNELL

*Vireo mailliardorum* new species

**CHARACTERS**—Similar to *Vireo huttoni* of the mainland of California, but slightly inferior in size with especially smaller bill; coloration darker, more leaden olive above and a little more buffy yellow below posteriorly.

**TYPE**—♂ (in unworn adult annual plumage); No. 5425 Coll. J. G.; Friar's Harbor, Santa Cruz Island, California; September 1, 1903; collected by J. Grinnell.

**MEASUREMENTS** (in inches)—

Collection	No.	Date	Sex	Wing	Tail	Tarsus	Culmen	Bill from nostril
J. Grinnell	5424	Sept. 1, '03	♀	2.35	2.15	.78	.40	.25
"	5425	" " "	♂	2.40	2.16	.71	.40	.25
"	5426	" " "	♂	2.38	2.14	.76	.39	.24
J. & J.W. Mailliard	3145	April 15, '98	♂	2.39	2.11	.76	.40	.25
"	3171	" 17, "	♀	2.27	2.06	.72	.39	.24
"	3218	" 21, "	♂	2.43	2.15	.72	.40	.25

**DISTRIBUTION**—Permanently resident on Santa Cruz Island, California.

**REMARKS**—Santa Cruz Islands lies about twenty miles off the coast of Santa Barbara county, California. Although it is so close to the mainland, a large number of its plants and more sedentary animals have proven to be peculiar. Mr. Joseph Mailliard during a visit to this island in 1898<sup>a</sup> secured three specimens of the above-described bird. Moreover he mentioned some of its points of difference as compared with the mainland *Vireo huttoni*; but his well-known conservative attitude in regard to slightly defined species deterred him from bestowing a name. During a recent visit to Santa Cruz Island I also found *Vireo mailliardorum* to be fairly numerous among the live-oaks in the canyons at the west end. Three specimens were obtained. The six skins at hand agree in the characters as outlined. The species is named for Messrs. Joseph and John W. Mailliard, whose conscientious work with western birds deserves at least this slight token of our recognition.

## CORRESPONDENCE

## The A. O. U. Model Law

TO THE EDITORS OF THE CONDOR:

DEAR SIR:—Under the head of 'Editorial Notes' in the September-October issue of THE CONDOR is a most surprising outburst of criticism and abuse of the A. O. U. 'model law' and, incidentally, of the A. O. U. Committee on Bird Protection, so evidently prompted by selfishness and so pervaded with ignorance and misconception of the real facts of the case that a word in reply seems desirable. The outcry<sup>1</sup> is against the clause granting permits to properly accredited persons for the collection of birds and their nests and eggs for strictly scientific purposes, which was inserted especially to allow 'Ornithology to come in.' "Take this feature away, says the writer,<sup>2</sup> "and it is a good law." He glories in the fact that his own State of California "is still free," and adds that "it is largely to this fact that its exceptional ornithological activity is due. We need a good bird law here, but we of the Cooper Club are not criminals and do not require to be bonded when we seek the festive song sparrow or chickadee."

The fact is overlooked that without this provision the ornithologists who merely collect birds, for scientific study, the pot hunter and the commercial bird trapper would all be in the same criminal category of law breakers, subject to arrest and punishment whenever detected.

<sup>3</sup> The hardship, here editorially so grossly exaggerated, of taking out a bond and paying the trivial fee of one dollar a year, suffices to differentiate the ornithological collector from the criminal classes, and ensures his protection from the annoyance of arrest, to which he would otherwise be liable. The law cannot well otherwise discriminate such non-criminals as the members of the Cooper Club, or of the A. O. U., or other reputable bird students, from the pot hunter, the mil-

<sup>a</sup> Bulletin Cooper Orn. Club I, May 1899, p. 44.

linery collector, or the lawless boy or man who shoots birds or destroys their nests and eggs in pure wantonness.

This law was draughted by the A. O. U. Committee on bird protection in 1886 and was adopted by the State of New York the same year. Since that date, through my official connection with the American Museum of Natural History, I have had supervision of the issuance of the permits to collect birds, their nests and eggs for which it provides. „Fifteen years' experience enables me, therefore, to speak with some authority of its workings and it may be said that so far as bird students in New York are concerned the simple legal requirements connected with securing a permit and the nominal fee of one dollar, far from being considered a "hardship," are welcomed as a means of protection from indiscriminating game wardens.

Indeed, so desirable is the permit feature usually considered by ornithologists that with the single exception of California they have uniformly advocated the passage of the A. O. U. law, not only as a measure designed to protect birds from wanton destruction, but as a means of legalizing their own calling. The atmosphere of liberty-loving California, however, appears to stimulate a different feeling.

5 Especial stress is laid, in the editorial in question, on the hardships inflicted on the non-resident who wishes "to go over the border" for a few weeks' collecting in a neighboring state. In most states and territories of the Union and of Canada the non-resident gunner is required, under current game laws, to take out licenses and pay special permit taxes to kill game, all in the alleged interest of game protection; but when we go to "seek the festive song sparrow or chickadee" in a neighboring state our editorial advocate of ornithological freedom resents any "bonded" hindrances believed to be for the public good. 6 Possibly our friends of THE CONDOR have some happy device for a bird law that will protect the little birds from all their human foes (which do not include the "better balanced ornithologists") and be not "un-American nor in any way trammel their dearly cherished ornithological freedom.

American Museum of Natural History,

New York City, Oct. 6, 1903.

J. A. ALLEN.

[Dr. Allen has indeed turned upon us the artillery of his strenuous rhetoric, and were his aim less careless we might feel inclined to betake ourselves to tall timber. We had not the slightest notion upon whose special preserves we were trespassing, when we penned the mild criticism, for which we are threatened with immediate annihilation. If the Doctor is pleased to term our editorial an "outburst," we might ask what especial epithet he would apply to his present communication. We would like to say at the outset, however, that our editorial *did not* abuse the A. O. U. Bird Law, nor the committee, even "incidentally," as anyone may see who takes the trouble even to skim over the criticism in question, and just why this positive assertion is made, we are at a loss to understand.

Dr. Allen's animadversions provide good reading for those who delight in the prospect of an impending tilt in polemics. Yet, candidly, we cannot see how anyone could distort our remarks so completely, as put forth such a reply. The only alternative left us is to conclude that our friendly critic is suffering from an aggravated case of "misconception" of the main point of our contention. Some of Dr. Allen's items have been numbered by us and will be referred to *seriatim*.

(1) Our "outcry" is most certainly *not* against the clause granting permits to properly accredited persons for the collection of birds and their nests and eggs, but is, as stated succinctly in the editorial, directed against the necessity of taking out a 200 dollar bond every time such a permit or license is obtained. We are heartily in favor of special permits, but not the bonds.

(2) This is what is called "abuse" a few lines above.

(3) We repeat that the taking out of a bond *is* an expensive hardship, and was not "grossly exaggerated." (See Mr. Nelson's communication on this point). We have no special objection to the \$1.00 license-fee, if it is a just fee, but exactly how the addition of a bond helps to discriminate between non-criminals such as reputable bird-students, and the other class, such as pot-hunters, our generalizing opponent of "ornithological freedom" does not specify. Pot-hunters are not recommended by two responsible ornithologists, nor do they bear special licenses.

(4) In passing we might casually ask our critic how many bonds have been forfeited during his fifteen years' experience in supervising the issuance of permits in New York state, and if any, were the parties each recommended by two well known ornithologists, as the law requires? We presume "bonds" are in force in New York, tho here again the Doctor dodges the issue.

(5) In answer to these points we recommend the careful perusal of Mr. Nelson's remarks, printed below.

(6) Yes, Doctor, even your friends of THE CONDOR can offer some timely suggestions for the improvement of the 'Model Bird Law' and we repeat the one already given gratuitously: strike out the bond feature from the clause pertaining to the issuance of licenses. This, we be-

lieve is the happy device whereby the little birds will still be protected "from all their human foes," and the law will not be un-American, "nor in any way trammel" our "dearly cherished ornithological freedom." That many of the leading ornithologists of the country (who are presumably among the "better-balanced") do object to the bond feature we can amply prove, if evidence is desired.

In conclusion we might add that we sincerely regret that our critic has twisted and so entirely misconstrued our (to the western mind) really mild editorial. Still with the friendliest intentions in the world we cannot help hoping that the next time he goes gunning for heretical Western editors, his efforts may be crowned with better success.—WALTER K. FISHER.]

### On the 'Bonding Clause' of the A. O. U. Model Law

#### TO THE EDITOR OF THE CONDOR:

In the last CONDOR I note with approval some editorial objections to the bonding feature of the A. O. U. bird law. The utility and necessity of a license system in laws for bird protection are self-evident. But it appears to me that when the issuance of a license is properly safeguarded and its misuse by the holder is attended by permanent forfeiture and, if necessary, similar penalties to those inflicted for the breaking of game laws all reasonable requirements have been fully met.

The necessity of securing a bond is objectionable from several points of view. In many cases it will work hardship even to the point of preventing the accomplishment of valuable ornithological work. This will be brought about by the delays incident to securing a bond by a stranger, especially where it will be desirable to work say for a week or two in a state and one's time is limited. Or in the case of an ornithologist who would desire to work in several states during the same season. In such a case as that just mentioned, if a recent instance that has come to my knowledge is any criterion, the ornithologist would find it practically impossible to accomplish any work by the delays in securing the necessary bonds. In addition to this is the annoyance of having to ask friends to go upon one's bond, for bonding companies are expensive and not always available. If the laws for bird protection are aimed at those who destroy birds wantonly or for purposes of gain and not at field ornithologists then the bonding clause in the regulations governing the issuance of licenses to properly accredited ornithological students should be cut out.

E. W. NELSON.

## THE EDITOR'S BOOK SHELF

A NEW *PROCELSTERNA* FROM THE LEEWARD ISLANDS, HAWAIIAN GROUP. By WALTER K. FISHER. From Proc. U. S. Nat. Mus. XXVI, pp. 559-593, Jan. 29, 1903.

In this paper a new term of the genus *Procelsterna* is described. The birds were discovered, by the *Albatross* Hawaiian Expedition, on Necker Island, to the westward of the main Hawaiian Group. So far as known this tern inhabits only Necker, French Frigate Shoal, and Bird Id. Singularly it is most nearly related to *Procelsterna cinerea* of Australian waters, and not to *cerulea* of central Polynesia. The eggs, downy chick, and juvenal plumage are also described.

BIRDS OF LAYSAN AND THE LEEWARD ISLANDS, HAWAIIAN GROUP. By WALTER K. FISHER. Extracted from U. S. Fish Com. Bull. 1903; pp. 1-39 plates 1-10.

In this readable as well as thoroughly scientific paper we find the ornithological results of the *Albatross* Hawaiian explorations in 1902. The recentness of the observations adds an element of freshness to the unusual accuracy and vividness of the descriptions; and thus we are given by far the most valuable account which has yet appeared of "the greatest bird island in the world." Then too the fifty-two half-tones are fine examples of successful bird-photography, though we are disappointed that these could not have been reproduced at least in original size instead of reduced. One is perhaps most struck by the wonderful fearlessness displayed by the individuals of nearly every species presented in the mammoth bird community. We can only share with the author the fear of the deplorable consequences which would follow the introduction of some predaceous animal such as the cat. For Laysan Island is small, only three miles long, and easily accessible over the entire surface. The unparalleled opportunity afforded for study of the habits and life-histories of the various sea-fowl can be appreciated only after reading Mr. Fisher's faithful portrayal of his week's visit with the birds of Laysan.

NOTES ON THE BIRDS PECULIAR TO LAYSAN ISLAND, HAWAIIAN GROUP. By WALTER K. FISHER. From 'The Auk' XX, pp. 384-397, plates XII-XVI, Oct. 1903.

The author discusses the habits of the land birds of Laysan Island, and to some extent their relationships. This paper is an amplification of certain notes published in 'Birds of Laysan, etc.,' with the addition of several photographs not appearing in that paper. The reproductions are much better, and demonstrate the mistake made by the publishers of the 'Birds of Laysan' in attempting a cheap means of reproducing an exceptionally valuable set of pictures.

It is indeed singular that such a small island as Laysan should possess three land birds besides a rail and a duck, all peculiar.—JOSEPH GRINNELL.

BIRDS OF THE SISKIYOU MOUNTAINS, CALIFORNIA: A PROBLEM IN DISTRIBUTION. By MALCOLM P. ANDERSON AND JOSEPH GRINNELL. Proc. Acad. Nat. Sciences, Philad., pp. 4-15, Apr. 17, 1903.

The Siskiyou mountains in northern California are interesting faunally because they are a wedge between the more or less 'arid' Sierras on the east and the excessively moist coast belt on the west. The first portion of the paper concerns itself with the physiography of the region, and a list of the principal forest trees is given, all of which are characteristic Sierran forms. The only peculiar tree to this range, *Picea breweriana*, seems to have been overlooked. The Transition, Canadian, and Hudsonian Zones are represented.

As would be expected *a priori*, the avifauna proves to be a mixture of the Humid Coast Fauna and the Arid Sierran, and the "list is a remarkable one as showing the association of a number of birds not unusually found together." Forty-three species are listed. *Vireo huttoni obscurus* is found to be untenable.

A LIST OF LAND BIRDS FROM CENTRAL WASHINGTON. By ROBERT E. SNODGRASS. From 'The Auk,' XX, pp. 202-209, April, 1903.

During the summer of 1902 Mr. Snodgrass conducted a biological collecting expedition to the interesting Grand Coulee country of Central Washington, and the ornithological results are embodied in the present paper. The Grand Coulee is the bed of an ancient and temporary short-cut for the Columbia river around the eastern face of the old glaciers which flowed southward and eastward from the mountains. It is a gorge fifty miles long, and from one to two miles wide cut down three hundred to five hundred feet into the basalt. The country in this region is for the most part very desolate, being given over to the cultivation of wheat, and "there is nothing left of Nature but the air and the dust of the road." Fifty-two species of land birds were listed, with brief annotations.

ON THE TERRESTRIAL VERTEBRATES OF PORTIONS OF SOUTHERN NEW MEXICO AND WESTERN TEXAS. By WITMER STONE and JAMES A. G. REHN. Proc. Acad. Nat. Sci. Philad. pp. 16-33, May 7, 1903.

Mr. Stone has given us a list of forty-one species of birds secured by Messrs. Rehn and Viereck in the Sacramento Mountain region of south central New Mexico, and the extreme western portion of Texas. Specimens of thirty-one of the species were taken, the other ten being admitted on field identification. The range of *Spizella atrigularis* is extended eastward by the capture of a specimen at Dry Canyon, Otero Co., N. M.

DESCRIPTIONS OF NEW GENERA SPECIES AND SUBSPECIES OF AMERICAN BIRDS. By ROBERT RIDGWAY. Proc. Biol. Soc. Washington, XVI, 105-112, Sept. 30, 1903.

In this paper Mr. Ridgway publishes diagnoses of four new genera of swallows, and twenty new species and subspecies of North and Middle American birds. These new forms are included in Part III of "Birds of North and Middle America," "now mostly in print, the further printing and publication of which has been postponed until after June, 1904." Of interest to western bird students is *Budytes flavus alascensis* from Western Alaska; *Lanius ludovicianus mearnsi*, from San Clemente Island, Cal., and Santa Margarita Island, Lower California; *Baeolophus inornatus restrictus*, "vicinity of San Francisco Bay, Cal."; *Baeolophus inornatus murinus*, Southern California and northern Lower California; *Psaltiriparus minimus saturatus*, "vicinity of Puget Sound"; *Chamaea fasciata rufula*, "central coast district of California, in Marin, San Francisco and Santa Clara counties." Part III of Mr. Ridgway's great work will contain much of especial value to Californians and we greatly regret the unlooked for delay in its appearance. The cause, needless to say, is due to circumstances over which the author has no control.

THE NORTH AMERICAN FORMS OF *ASTRAGALINUS PSALTRIA* (SAY), BY HARRY C. OBERHOLSER. Proc. Biol. Soc. Washington XVI, 113-116, Sept. 30, 1903.

Mr. Oberholser has briefly reviewed the North American forms of *Astragalinus psaltria* of



authors, namely *A. p. psaltria*, *A. p. arizonæ* and *A. p. mexicanus*. He concludes that the last two are the same as *Astragalinus p. psaltria*. *Arizona*, from Fort Wingate, N. M. was based on the immature parti-colored plumage of *psaltria*, and *mexicanus* is nothing more than the fully perfected black-backed plumage of the same subspecies. All three of these so-called races have been found breeding together in Colorado. All adult males from Lower California, California, Nevada, Arizona and Utah "have the back olive green, apparently never assuming the black plumage of true *psaltria*." This form is described as *Astragalinus psaltria hesperophilus*, the type being taken from San Bernardino.

**BIRDS IN THEIR RELATIONS TO MAN.** By CLARENCE M. WEED and NED DEARBORN. 8 VO. 380 pages, and many full-page and text illustrations. T. B. Lippincott Co., Philad. 1903.

This excellent book is, as the title-page states, "A Manual of Economic Ornithology for the United States and Canada." It is written in an entertaining style, and is certainly a very valuable addition to the literature of economic ornithology. As a storehouse of facts for the lay-reader, as well as for the professional ornithologist, it will be warmly welcomed, and its mission of education is one to be highly commended. In such a short notice it is difficult to give an adequate idea of a book of this character, which necessarily deals with many details. We would therefore advise the reader to procure a copy, if he is interested in this important branch of ornithological study.

**THE ECONOMIC VALUE OF BIRDS TO THE STATE.** By FRANK M. CHAPMAN. State of New York Forest Fish and Game Commission, 4 to, pp. 1-66, 12 colored plates. Sept. 1903.

In this excellent paper Mr. Chapman has presented a treatise on the economic status of the more important land birds of New York state. But from the nature of the subject his remarks have a much wider application, and omitting certain species would apply very well to California. Of necessity much of the paper is compilation, but the author has exercised good judgment in the selection of extracts, and in the choice of his sources.

The paper opens with 'The Bird and the State,' followed by 'What the Bird Does for the State,' under which is considered, 'The Bird and the Forester,' 'The Bird and the Fruit-grower,' 'The Bird and the Farmer,' and 'The Bird and the Citizen.' Then follows 'What the State does for the Bird,' 'What the State Should Do for the Bird,' and 'The Facts in the Case.' The principal families of land birds are taken up in order, and the commoner or more important economic species are considered under each. Copious references are given to original sources, which makes the paper a most handy compendium of economic ornithology.

The twelve colored plates are by Mr. Louis Agassiz Fierstein, and are well reproduced. They represent twenty-four species, of the leading types, from hawks to thrushes. The plate representing the red-tailed and Cooper hawks is particularly fine, both in the pose of the birds and in coloring, and we are also much taken with that of the screech owl, representing the gray and rufous phases of this familiar bird.

**NOTES ON THE ANATOMY OF GEOSPIZA, COCORNIS AND CETHIDIA.** By ROBERT E. SNODGRASS. From 'The Auk,' XX, pp. 402-17, plates XVII-XX.

Mr. Snodgrass compares at some length the anatomy of *Geospiza*, *Cocornis* and *Certhidia*. *Certhidia* is usually considered as belonging to the Mniotiltidæ and *Geospiza* and *Cocornis* to the Fringillidæ, but "in all structural points *Cocornis* really resembles *Certhidia* more than it resembles *Geospiza*. To be sure, the adult males of *Cocornis* and most of the *Geospiza* species are almost plain black, while the adults of *Certhidia* are gray with admixtures of olive and brownish. Yet, in the shape of the bill and in the structure of the skull *Certhidia* and *Cocornis* are almost identical. On the other hand, the structural differences between *Cocornis* and *Geospiza* are slight—the slender-billed *Geospiza* differ from *Cocornis* in the characters of the skull and skeleton of the bill scarcely more than *Cocornis* does from *Certhidia*. The difference is not nearly so great as that between the slender-billed forms of *Geospiza* itself. Hence, a study of these three genera, is suggestive of a possible derivation of *Geospiza* from *Cocornis* and of *Cocornis* from *Certhidia*. This however, would place *Geospiza* in the Mniotiltidæ!"

There is no objection to this, Mr. Snodgrass. Certain learned authorities group together into the family Drepanididæ birds as dissimilar as our redstart and cardinal grosbeak. Verily classification plays some queer pranks!—WALTER K. FISHER.

## THE CONDOR

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### EDITORIAL NOTES

Mr. H. B. Kaeding has been obliged to resign the secretaryship of the Club, having been called to Mexico for an indefinite period. The club can ill afford to lose such an active officer, and we hope Mr. Kaeding will soon be among us again. Mr. C. S. Thompson, of Stanford University, has been appointed secretary for the remainder of this year. All communications to Mr. Kaeding should be sent to 820 Scott St., San Francisco.

If we may correctly judge from numerous letters, our objections to the bond clause of the A. O. U. Bird Law (published in the September issue) must have voiced a rather widespread feeling among active field workers. Nearly everyone from whom we have heard seems agreed that the bonds do not accomplish enough good to pay for the inconvenience of procuring them, while evidence is forthcoming which tends to show that they may do harm.

As a matter of history it is perhaps worth recording that when the A. O. U. Model Law was introduced into the California legislature on February 18, 1903 as Senate Bill No. 649, by Senator Lukens, not only was the bond feature stricken out, but likewise the license fee.

At the November session of the Club the following nominations were made for officers for 1903: for President, Henry Reed Taylor; Senior Vice-president, R. B. Moran; Junior Vice-president, Earle Mulliken; Business Manager, J. Grinnell; Secretary, Charles S. Thompson.

The annual meeting will be held at the residence of the President, Mr. H. R. Taylor, 1375 Regent St., Alameda, on the second Saturday in January. All members within reach should make a point to attend. The annual meeting is always more given over to a social good time, than to papers, and the coming ses-

sion offers a splendid chance for everyone to become acquainted. Remember the time and place, and do not plead a "previous engagement!"

The twenty-first congress of the American Ornithologists' Union will be held at Philadelphia, beginning on the evening of Monday, November 16, 1903, and extending to the 19th.

The index which is bound into the present issue is the work of Mr. Grinnell. We wish also to thank Mr. Louis Agassiz Fuertes for the original of the vignette which appears on the title page.

This is the last issue of volume five. It is a fact worth recording that subscriptions for volume six, 1904, are now due. We merely whisper it as a hint, for our subscribers and friends are wise. It is likewise a truism that the more subscribers we have the better magazine we can offer. Promptness in remembering the New Year obligation is often as gratifying to us as new subscribers.

### Minutes of Northern Division Meeting

SEPTEMBER. The September meeting was held at the residence of R. B. Moran, in Palo Alto on the evening of the twelfth; W. K. Fisher, acting chairman, in the chair; 16 members and six visitors present. The following were elected to active membership: F. E. L. Beal, Washington, D. C.; Gertrude Forrester, Round Mt., Cal.; Foster C. Wright, Los Angeles. The following persons were proposed for election: T. S. Palmer, Frank M. Chapman and G. L. Kaeding. The resignations of A. M. Shields and E. K. Taylor were accepted. The following amendments to the constitution were proposed, passed and referred to the Southern Division for action.

Art. III, Section 5 to read, "Any person who shall, in the opinion of the Club, have rendered valuable or distinguished services in the advancement of ornithology, shall be eligible to Honorary Membership in this Club."

Art. II, Section 1 to read "This Club shall consist of two co-ordinate bodies known as the Northern and Southern Divisions respectively, the geographical limits of the Southern Division to be that portion of the State of California lying south of the 35th parallel of North Latitude."

The program was one of unusual interest. John M. Willard talked on the "Hiding of Young Birds"; J. O. Snyder on "Fishing With Cormorants in Japan"; R. B. Moran on "The Nesting Habits of the Black Oystercatcher"; and H. B. Kaeding on "Hawking in Korea."

After refreshments and a social session the Club adjourned to meet at Berkeley, November 7.

H. B. KAEDING, Secretary.

Dr. C. W. Richmond notes, in a recent number of the Proceedings of the Biological Society of Washington, that *Corvus americanus* Audubon, 1834, must give place to *Corvus brachyrhynchos* Brehm, 1822. *Scolecophagus* Swainson, 1831, preoccupied, becomes *Euphagus* Cassin, 1866.

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